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THE

CHICAGO MEDICAL Journal and Examiner.

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JULY TO DECEMBER.

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THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXV.—JULY, 1877.—No. 1.

American Medical Association.

TWENTY-EIGHTH ANNUAL MEETING.

HELD IN THE CITY OF CHICAGO, JUNE 5, 6, 7 & 8, 1877.

TUESDAY, JUNE 5.—FIRST DAY.

The Association met in Farwell Hall, and was called to order at 11 A. M., by Dr. J. Marion Sims, the retiring President, who, in fitting words, thanked the Association for the honors it had conferred upon him, paid a flattering compliment to the founder of the Association, Dr. N. S. Davis, of Chicago, and, with a glowing reference to the labors of Dr. H. I. Bowditch, of Boston, introduced him as the incoming President.

In response to this pleasant introduction, Dr. Bowditch expressed his pleasure and congratulations to the Association, upon its meeting in the Queen City of the West, under such propitious circumstances; and expressed the hope that all would retire from the meeting, feeling that they possessed good will toward all men, and that they had learned something which might be utilized for the benefit of suffering humanity,

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and which could be carried with them till they were transferred from this sphere of human activity.

Prayer was then offered by the Rev. William L. Harris, D. D., LL. D., who invoked the blessing of God upon the Association, and its annual meetings.

Upon a call from the President, Dr. N. S. Davis, chairman of the Committee of Arrangements, delivered the address of welcome on the part of the profession in Chicago; referring in a happy manner to the evidences of characteristic enterprise in the city which gave them greeting. He briefly mentioned the institutions which the delegates might desire to visit, as well as the receptions of a social nature to which they were bidden. A touching reference was made to the preliminary meeting, held thirty-one years ago in the city of New York, when organization was first effected. In that meeting were seventy-six voters, of which one alone was then in attendance in Chicago, Dr. W. T. Atlee, of Philadelphia. Nearly all the original number had passed to their final reward. Of the twenty-eight presidents, sixteen had found a last rest from their labors. Reference was made to the death of Dr. Henry F. Askew, of Delaware, an ex-president of the Association.

In closing Dr. Davis again assured his hearers of a most general and cordial welcome from the people of Chicago, and said he hoped they would carry on the work of their profession even more vigorously, more nobly, and more successfully than they had in the past, and that these annual greetings would continue while the country endured, and as long as time should last. [Applause.]

Dr. Norman Bridge, on the part of the Committee of Registration, read the list of delegates whose credentials had been approved, and whose names had been duly registered.

The following gentlemen were elected members by invitation: D. F. Boughton, of Mendota, Wis.; W. H. Bunker, of Cincinnati; J. A. Reed, Dixmont, Pa.; D. Leavitt, and Eichberger, of Terre Haute.

The following gentlemen were elected permanent members: Drs. J. K. Bartlett and E. W. Cross, of Minnesota;

Drs. D. A. K. Steele, S. A. McWilliams, John E. Owens, Charles T. Parkes, E. O. F. Roler, Charles L. Rutter, D. T. Nelson, J. S. Knox, W. E. Quine, W. S. Nevins, M. P. Hatfield, Thomas Bevan, E. W. Sawyer, and L. H. Montgomery, all of Chicago, and S. M. Hamilton, of Monmouth, Ill.

The President invited the retiring President, and also the delegates from the Canadas, to take a seat upon the platform.

PRESIDENT'S ADDRESS.

Dr. Bowditch then delivered the President's annual address, of which the following is a brief abstract:

In accordance with precedent, he desired to touch upon topics tending to improve the practical working of the Association, and would therefore make suggestions on the past, the present and the future.

Prior to 1847, the medical profession of the country, as a united body, did not exist; local societies having been formed here and there, but in consequence of political differences, and the difficulty of communication, medical men were alienated rather than drawn together. The result of the union accomplished, has been made evident in the establishment of valuable friendships, which would otherwise have never been made, in the dropping of idiosyncrasies, and in the rapid and easy coalesence of medical men, immediately after the civil war.

The speaker called attention to the enthusiasm prevalent at the earlier meetings, and deprecated the use of wine, which at times used to flow freely at the public and private gatherings.

Respecting the present status of the Association, the speaker felt sure that the meetings had lost reputation in the Eastern and Middle States—there was a lack of co-operation of the entire profession—prominent Western and Southern men absented themselves—many young men and some scoffing elders considered the body a hindrance to the progress of scientific medicine. Some of the reasons for this were, violent discussions of points of order, or ethics; intemperance, disappointment of these having a high standard of the profession; the *cacoethes scribendi aut loquendi* of some individu-

als; bulky and valueless transactions, occasionally containing papers which had been previously printed; violent partisanship; the effort to pass resolutions pledging the Association to one side or another of a mooted question; and the democratic principle of its organization by which representation was denied to hospitals and colleges.

The following propositions were made with a view to changes which were much needed:

The sections should perform their critical duty by preventing the transactions from being burdened with papers of small value, and thus not permit writers to fail of the highest standard of scientific attainment. Though the sections have in many directions proved themselves of great value, still he did not believe that the desirable result would ever be obtained by trusting to them alone. To obviate the difficulty, the wise regulations of the Smithsonian Institution were recommended; viz.,

1. The publication of only such papers as, after approval by the sections, shall have been submitted to experts whose names are unknown, and whose decision shall be final.

2. The rule that no paper should be published unless it either (a) contributed something new, or (b) made a valuable analysis or arrangement of facts already known.

The incalculable value of the establishment of the judicial council, in 1873, was pointed out; and the following proposition submitted to them:

The appointment of a standing committee for the purpose of procuring scientific papers for each annual meeting, from the ablest men in the various sections of the country, such papers to have precedence over voluntary papers, which latter were not for that reason to be discouraged. It was suggested that a small committee, of five, for example, could be constituted in such a manner that each member might hold office for five years, one leaving annually. Originally created by the judicial council, this committee might afterward itself fill vacancies, the oldest in service acting as chairman in the last year of his office; one or more of the older members of the profession might be there represented, the majority being

made up of earnest, accomplished, middle-aged, or younger men. The committee should hold its sessions, each year, during the week of annual meeting, and should, if possible, select the best men at one meeting, and engage them to prepare papers for the next ensuing. All these papers should be referred to experts after reading, and wide public notice should be given, months before the meetings, of their titles and the names of their authors.

The speaker thought that in two points the Association would do well to follow the lead taken at Louisville, in 1875, (1) in abstaining from all intoxicating drinks, and (2) in extending an invitation to women to meet with members in social intercourse. Even those not believing in the propriety of total abstinence or prohibition, should be willing to make concessions for the sake of the weaker brethren; and such a step taken by the Association would have an indirect but powerful effect on the cause of temperance.

Two other suggestions: (1) Every honorable, well-educated physician in the United States, should become a member of the Association by the very fact of his having become a physician. Every member of a State society should become a permanent member of the Association. (2) The honor of becoming a delegate would be greater, if each society could send one representative only for each 20, or perhaps 30, members; and possibly the best men of the profession would be willing then to accept the honor.

The following reasons were given against the proposed union with the Canada Medical Association: 1, the large dimensions of the American Association; 2, the two languages employed in Canada; 3, the difficulty of arranging for expenses incidental to such union; 4, the distance between places where meetings might be held.

On the other hand, in favor of the plan were: 1, the high standard of the British schools; 2, the evident fact that the large Canadian constituency might send delegates precisely as a new State Medical Society in a distant State; 3, the value of such a union in the way of promoting good-will between the two countries; 4, the opening up of such cities as Mon-

treal and Quebec as places of meeting. He suggested that the whole matter be referred to the judicial council, to report upon the feasibility of union, or of biennal or quinquennial congresses of the two bodies; with the nomination of a committee to act with one chosen by the Canadian Association, the joint committee to draft a plan for submission subsequently to the two bodies.

Proceeding next to the question of the American Pharmacopœia and the relations of the Association to it, the speaker detailed the resolutions proposed, the previous year, by Dr. E. R. Squibb, of Brooklyn, N. Y., and carried by the Association. He then proceeded to sketch the history of the Massachusetts, New York, and Philadelphia Pharmacopœias, and the method by which the last-named which has survived the others, is still published by the Decennial Convention of delegates from incorporated colleges of medicine and pharmacy. The American Medical Association had never taken any action upon the work of the two conventions held since its organization, first, because it was not invited to do so; and, second, because, never having been *incorporated*, it had no right to do so.

Under the circumstances, therefore, the Association might either, (1), procure an act of incorporation before 1879; (2), send delegates to the convention of 1880, and ask for their admission, or, (3), adopt the plan of Dr. Squibb, and appoint a pharmaceutical council, with the co-operation of the army and naval medical men, and the American Pharmaceutical Association.

The complaints against the present pharmacopœia are: first, that it is not sufficiently cosmopolitan; second, that it is too unfrequently published, a demand being made for an annual tentative selection of formulæ, in accordance with the plan followed by the publishers of the German Codex; third, that the pharmacopœia is not really national in authority and scope; finally, that the dispensatory of 1870, fails to meet the edition of the pharmacopœia of that year.

The plan suggested by the Chicago College of Pharmacy involved the selection of two committees—one of physicians,

the other of druggists, to divide between them the labor of devising and directing the preparation of formulæ, and of publishing the results—the chief objection stated was the implied limitation of the druggist to the remedies proposed by the physician.

The objections and suggestions stated above could not be applied to the Dispensatory, which was a private work, valuable in character, and remunerative to its copyright holders.

The protests of the Philadelphia County Medical Society, the Philadelphia College of Physicians, and the Philadelphia College of Pharmacy, were laid before the Association—all against any action by the latter in the premises.

In conclusion of this subject, the speaker urged the appointment of a committee to the convention of 1880, with instructions to report upon the result of their inquiries into the matters connected with the pharmacopœia. The presumption to be formed from the not rapid sale of the previous publications of the American Medical Association, did not promise much success in an undertaking of the kind proposed.

The speaker then briefly referred to three important subjects: first, the committees on State Boards of Health, who were doing a good work; second, the influence to be exerted upon members of Congress, relative to the museum and library of the Surgeon General's office, U. S. Army, its need of national support, its great value and usefulness; third, the interest from funds collected to keep alive the memory of the first ovariotomist, Caldwell, and its disposal in premiums, not merely to writers upon the uterus and its appendages, but to those "who have confessedly promoted the welfare of mankind by original conceptions, essays or contributions to medical science." This was considered liberal, but the speaker thought the subject of gynecology in its broadest sense, sufficient to satisfy the desires of all.

The President concluded by saying that the future of the Association depended mainly on the way in which the physicians of this country, and especially the young physicians, did their duty toward it. If the best men in the profession would not come to its meetings and work for the common good of

all; if they stood aloof and complained of the inferiority of its work, or actually scoffed or sneered at it, it would accomplish less than it could wish. But it should certainly love to invite to its meetings every prominent physician in the country, and if those who did attend the meetings would determine that nothing but what was excellent should be published in its works, then they would be doing a really noble work, and the Association would eventually claim the highest respect of the whole profession. [Applause.] It was growing stronger every year. It had enjoyed a perpetual youth, a stalwart manhood, and, he sincerely trusted, it would live to a genial old age. [Applause.]

On motion made by Dr. Brodie, of Detroit, the thanks of the Association were returned to its President for his interesting address. The address was referred to the Committee on Publication.

Dr. Brodie further moved that a committee of seven be appointed to report upon the recommendations embraced in the President's address.

The first Vice-President, Dr. N. J. Pittman, of North Carolina, announced the committee, as follows: Dr. W. B. Brodie, of Detroit; Dr. S. D. Gross, of Philadelphia; Dr. E. Grissom, of North Carolina; Dr. J. R. Smith, of U. S. A.; Dr. J. R. Bartlett, of Minnesota; Dr. J. P. White, of Buffalo; Dr. J. M. Toner, of Washington.

A number of papers were then read by title and referred to their appropriate sections; after which the Association adjourned to meet at 9:30 A. M. on Wednesday, June 6, 1877.

Wednesday, June 6.—Second Day.

The Association was called to order at 9:30 A. M. by the President. The minutes of the previous meeting were read and approved. A recess of ten minutes was taken to allow the delegates opportunity to select their representatives for the Nominating Committee, and report such selections to the Secretary.

The following volunteer papers were referred to their appropriate Sections: *On Plastic Splints*, by Dr. H. O. Marcy, of Massachusetts; *On Epithelioma*, by Dr. S. P. Breed; *On a New Speculum*, by Dr. E. A. Hildreth, of West Virginia; *On Conservative Surgery*, by Dr. I. N. Quimby, of New Jersey; *A New Instrument*, exhibited by Dr. H. I. Bowditch, of Boston.

PERMANENT MEMBERS.

Dr. Davis submitted the following names for election as permanent members: Drs. F. C. Schaefer, Chicago; W. H. Fitch, Rockford, Ill.; G. H. Chapman, Hudson, Mich.; G. E. Willard, Chicago; C. C. Hunt, Dixon, Ill.; J. J. Stone, G. Benedict, and J. H. Stewart, of Minnesota; J. N. O.Brien, Plymouth, Wis.; R. Dexter, and J. Vider.

REPORT ON THE PRESIDENT'S ADDRESS.

Dr. Brodie, of Michigan, chairman of the special committee appointed to consider the recommendations embodied in the President's annual address, submitted the following report:

"Your special committee, to whom was referred the recommendations in the President's annual address, respectfully report that they have had the same under consideration, and recommend as follows:

"1. The Smithsonian plan: It is believed that if the officers of the Sections should perform their duties promptly under the existing regulations, there would be no necessity for further examination.

"2. In the matter of a standing committee to procure papers on scientific subjects, it is or should be part of the duty of the chairmen of the Sections to obtain suitable matter for their respective Sections, at as early a time after their appointment as possible; and it is believed this would effect what the President proposes.

"3. On permanent members and representation, we do not think it best at the present time to make or suggest any change in the present plan of organization.

"4. On the union of this Association with the Canada Medical Association, we consider the same impracticable, and

are of opinion that the present system of intercourse between the societies by delegates serves to meet the requirement.

"5. On the question of the Pharmacopœia, we deem it inexpedient at the present time to take any action in the premises."

On the suggestion of Dr. Bowditch, the report was laid upon the table temporarily.

REVISION OF THE U. S. PHARMACOPŒIA.

The hour of ten having arrived, Dr. E. R. Squibb, of New York, spoke on the revision of the United States Pharmacopœia. He stated that he was ready to report on this important matter, but saw from the programme that only one hour had been allowed for it. He would be unable to do more than to make brief allusion to the matter in that time, and was unwilling to dispose of it in any such cursory manner. It was deserving of a long and deliberate consideration. Yet he was willing to conform with the wishes of the Association and do as directed.

Dr. Davis, on behalf of the Committee on Arrangements, said that though this subject had been assigned to this hour, it might be laid on the table, at the close of the hour, for further consideration.

It was decided, on motion of Dr. Gallagher, to hear Dr. Squibb to the end of the hour.

The report, as read by Dr. Squibb, involved a full resumé of the arguments *pro* and *con* on the revision of the Pharmacopœia. It involved copious quotations from Dr. Wood's pamphlet on the subject. It denied the allegations of Dr. Wood that it was the intention by the proposed innovations, to abolish the old Pharmacopœia, but asserted that the design was to improve the present plan by introducing new and important revisions similar to those lately made in the German Pharmacopœia. Nor was it designed to interfere with the "Dispensatory," but merely to have a Pharmacopœia without a Dispensatory. It was intended by the new revision simply to undertake a work which the old Pharmacopœia did not do. He explained that it was intended by the revision to make the Pharmacopœia explain its own assertions, or definitions,

without the aid of a Dispensatory. He referred to many mistakes in the Dispensatory of 1877, showing little improvement since 1873, and which should be remedied. In refutation of the argument that the whole profession, by the proposed plan, would be under the control of one man, he averred that it should be remembered that that man would be the President of the American Medical Association; and that no more impropriety obtained in that, than in the representation of an entire Government by one Minister, as often occurred in national matters.

The time having arrived for another order of business, the subject was referred to the Committee on Arrangements to appoint an hour for its further consideration.

The next order of business was an

ADDRESS BY THE CHAIRMAN OF THE SECTION IN PRACTICAL MEDICINE, ETC.,

which was delivered by Dr. P. G. Robinson, of Missouri. The address consisted of a review of the progress made in medicine during the past year. It had been fully shown that accumulations of sewerage and the like became centres of contagion. Especial attention was directed to the etiology of specific fevers, notably the typhoid, and reference was made to the outbreak which occurred in Lancashire, England, in consequence of using milk supplied from one dairy. The attention of the Association was called to an article in the July number of the *American Journal of Medical Sciences*, where the cure of a case of rabies canina by the use of strychnine was reported by Dr. Watson, of Jersey City. In his case there was no aversion to water shown, and for that, and some other reasons, a number of physicians held that it was not a true case of hydrophobia. The great question to be settled was that of diagnosis.

Dr. Robinson then passed to a consideration of the use of salicine and salicylic acid in the treatment of acute rheumatism. These had been used with great advantage in various hospitals, both abroad and at home, and there was no doubt that a means of alleviating this terrible disease had been found.

Reference was made to the value of counting the blood-cor-

puscles in certain affections, and quotations made from several French authors.

In physiology reference was made to the labors of Ferrier, Fritz and Hitzig, Dalton, Mitchell, Hughlings Jackson, and others, regarding the localization of function in the brain, the function of the corpora quadrigemina, the duality of the vaso-motor system, etc. During the past year several drugs had been brought into use, and special mention was made of the use of gelseminum in the treatment of facial neuralgia, salicylic acid as an internal and external remedy, erythroxylon coca, and several other articles. The address was well received, and referred to the Committee on Publication.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OBSTETRICS.

Dr. Jas. P. White, of Buffalo, N. Y., delivered the address, and began by saying that the most notable event of the year was the formation of the American Gynæcological Society, and its transactions and publications were of great interest to the medical profession. Dr. White then called attention to a number of books and pamphlets in relation to this particular branch of medical study which were published last year.

Special and favorable mention was made of the writings of the late Dr. John S. Parry, and his book was reviewed to considerable length. The papers of Dr. Isaac E. Taylor, read before the New York Academy of Medicine, received special notice, but he was inclined to differ with Dr. Taylor as to the value of Cæsarean section when compared with craniotomy. The theory of Dr. Maxson, of Syracuse, N. Y., regarding the value of the knee-and-elbow position in the management of cases of malposition of the fœtus, received favorable mention. Pneumatic pressure, by Dr. Campbell, of Georgia, was noticed and believed to possess some value. Dr. White was pleased to notice the growing sentiment in favor of the use of the obstetrical forceps, and exhibited a pair made in accordance with his own views regarding the construction of the instrument. The management of placenta prævia was under consideration when the hour expired.

COMMITTEE ON NOMINATIONS.

The Committee on Nominations was announced as follows:

Dr. J. M. Keller, Arkansas; Dr. L. M. Lovelace, California; Dr. C. R. Bissell, Colorado; Dr. H. M. Knight, Connecticut; Dr. W. Marshal, Delaware; Dr. W. H. Ross, District of Columbia; Dr. R. Battey, Georgia; Dr. C. H. Rawson, Iowa; Dr. T. D. Fitch, Illinois; Dr. G. Sutton, Indiana; Dr. W. L. Schenck, Kansas; Dr. D. W. Yandell, Kentucky; Dr. J. C. Egan, Louisiana; Dr. W. B. Cobb, Maine; Dr. H. O. Marcy, Massachusetts; Dr. C. H. Ohr, Maryland; Dr. L. Connor, Michigan; Dr. C. P. Adams, Minnesota; Dr. T. B. Lester, Missouri; Dr. W. M. Compton, Mississippi; Dr. S. G. Dearborn, New Hampshire; Dr. S. Lilly, New Jersey; Dr. J. P. Gray, New York; Dr. E. Grissom, North Carolina; Dr. W. W. Jones, Ohio; Dr. S. D. Gross, Pennsylvania; Dr. W. H. Palmer, Rhode Island; Dr. W. H. Geddings, South Carolina; Dr. D. J. Roberts, Tennessee; Dr. A. E. Carothers, Texas; Dr. William R. Hutchinson, Vermont; Dr. F. D. Cunningham, Virginia; Dr. J. C. Hupp, West Virginia; Dr. J. T. Reeve, Wisconsin; Dr. J. R. Smith, United States Army.

Dr. Nichols, of the District of Columbia, President of the Association of Superintendents of Insane Asylums of the United States, was then introduced by Dr. N. S. Davis, and the Association adjourned to meet at 9:30 A. M., June 7, 1877.

THURSDAY, JUNE 7.—THIRD DAY.

The Association convened at 9:30 a. m., Dr. Bowditch presiding; the attendance was as large as on the previous day. The list of those who had registered was read by the Secretary, the total number of delegates now present being given as 660.

Dr. N. S. Davis reported the following names proposed as members by invitation: Dr. H. P. Godfrey, of Berlin, Wis.; Dr. J. R. Moffatt, Prairie du Chien; Dr. R. G. Floyd, Whitehall, Wis.; Dr. G. F. Everett, Dixon, Ill.; Dr. Truman W. Miller, Chicago; Dr. Thomas R. Douglas, Pennsylvania; Dr. C. M. Fitch, Chicago.

The following were proposed as permanent members: Samuel Tibbets, M. D., Kirkwood, Ill.; G. M. Chamberlain, M. D., Chicago; C. G. Simmons, M. D., Chicago; Charles W. Chaffee, M. D., Chicago; William M. Kaull, M. D., Princeton, Ill.; James H. Wallace, M. D., Monmouth, Ill.; John A. Meek, M. D., Jonesboro, Ind.; Josiah Rogers, M. D., Ripon, Wis.

Both reports were received, and the members declared elected as proposed.

The Secretary stated that the only reports as to necrology were those received from the States of Indiana, Maryland, and Missouri, and from the United States army. He moved the reference of the reports received to the Committee on Publication, which was ordered.

The Committee on Prize Essay reported that but one essay had been placed in its possession in time to permit of a reasonable examination, and that they do not consider it entitled to the prize. Another was received only a few day before the opening of the present session, and, as they had not been able to examine it, they recommended that the author be permitted to withdraw it and present it at the next meeting. The report was adopted.

The Judicial Council reported in regard to several cases before them of disputes as to representation, recommending in the case of the dispute between the Arkansas State Medical Society and the Arkansas State Medical Association, which was decided in favor of the former last year, that no further action be taken, and that the application for the admission of a delegate from the latter body be refused. They also reported favorably on the admission of delegates from the Branch County Medical Society of Michigan, and against the admission of a delegate from the Hendricks County Medical Society. In the matter of certain charges made by Dr. G. E. Frothingham against the Michigan State Medical Society and against Drs. Foster Pratt, of Kalamazoo, and G. K. Johnson, of Grand Rapids, the Committee reported that the charges had no bearing on the professional character of the defendants, and should therefore be dismissed. All the reports were accepted.

The Committee on Publication reported as follows:

Your Committee is constrained to acknowledge that the late date which the volume for 1876 (Vol. XXVII. of the series) was issued needs explanation. The delay of a few months subsequent to the annual meeting is, of course, due to the fact, to which attention has many times been called, that the edition which it is proper to print cannot be arrived at except by means of answers to circulars sent to the members. It is unpleasant to find fault at all, but to be compelled to complain of annually-recurring neglect, if not of downright inefficiency, is an exceedingly ungracious task. The Committee of Publication is profoundly convinced that the proceedings of a medical body like that of the American Medical Association can be adequately reported by men of medical education alone. No skill or training can compensate for the lack of this qualification. And yet for years past the Committee has been annually delayed by a mass of copy prepared by professional reporters, of which a large portion has been undecipherable, and of course unfit to be put into the hands of the printer. We allude to the copy furnished for the minutes of the sections. In this copy medical terms were misspelt in instances without number, while in equally numerous instances gaps represented the words which the reporters were unable to catch or to understand. Sometimes the confusion thus produced was of the most perplexing character. In fact, had it not been for the kind co-operation of several members who had attended the last session of the Association, and who had participated in the discussions, the Committee of Publication would have been forced to eliminate paragraph after paragraph from the minutes. To these causes the delay in the issue of the volume has been principally due, and in view of them the Committee thinks it can consistently claim the indulgence of the Association. The prize essay was put through the press as promptly as the very elaborate character of the work permitted. Of Vol. XXVII., 1,250 copies were printed, 1,207 copies distributed to members, and 43 copies are on hand. Of the prize essay 1,250 copies were printed, of which 1,067 have been distributed, leaving 183 on hand.

The report was referred to the Committee on Publication.

The Treasurer reported as follows:

Under the positive instruction of the Association the prize essay has been published at a cost of some $6,000. This unusual outlay, in addition to the annual volume of transactions, leaves the Treasury in an exhausted condition, as it has practically given to each member $9 in value for $5 received. In this last report, after twenty-two years of service, it remains for the Treasurer to thank the Association for its long-continued confidence, and to regret that in leaving the Treasury solvent he cannot leave a more abundant surplus.

It was stated that the Treasury now contains a balance of $172.72. This report was also referred to the Committee on Publication.

Dr. Erzra M. Hunt, of N. J., Chairman of the Section on State Medicine and Public Hygiene, read a paper in regard to the use of vaccination and inoculation in zymotic diseases. He argued that the good effects shown in the case of small-pox tended to show that there was strong reason to believe it to be applicable to all zymotic diseases. He believed that it was possible, by energetic preventive measures, to practically remove these diseases, and contended for a more efficient sanitary police. If municipalities would furnish means, Boards of Health could go for epidemical disease in as systematic a way as a fire-engine went to a fire, and could as effectually stamp it out. Public hygiene received much greater attention in England than in this country, and engaged the attention of many of her most prominent scientific men. There is no better way to train the medical student than to familiarize him with the methods of the best sanitary records. In conclusion, the lecturer urged upon all medical colleges to pay greater attention to the subject of public hygiene, and to make its study a part of the college curriculum. He believed that in the time to come, by paying the strictest attention to sanitary principles, disease might be almost entirely prevented, and instead of needing two Pharmacopœias they would beable to dispense with any. There was no fear, however, that Othello's occupation would be gone, but the profession would become a preventive force.

The paper, which was well received, was ordered referred to the appropriate Section.

The Secretary read the report of the Librarian, as follows:

During the past year, as shown by the catalogue, there have been added to the library 187 distinct titles, exclusive of yearly volumes of transactions of societies, reports of hospitals, boards of health, and volumes of medical journals, where these have been previously catalogued as distinct titles. This addition makes the library to consist at present of 817 distinct titles, which comprehend from a general estimate about 2,034 volumes, inclusive of pamphlets. In the catalogue will be found the names of forty-six American medical periodicals and nine American, national and State, medical societies, which, agreeably to previous resolutions adopted by this Association, send their publications in exchange for the yearly volume of Transactions. It is to be regretted that the list does not comprise all similar institutions in the United States, but as year by year, as shown by the Treasurer's report, renders previous volumes of the Transactions difficult to obtain, these institutions will no doubt endeavor to secure copies for their libraries in due season. It is exceedingly perplexing to the Librarian to have a State Society, for instance, on ascertaining that it needs a set of the Transactions of this Association, offer to exchange its own publications therefor, and to be obliged to reply that ten out of the twenty-seven annual volumes are out of print, and that it is impossible to supply them. All of these institutions have in previous years been duly notified of the objects, aims, and wants of this library. A change of officers may, in some instances, have caused these notifications to be overlooked or neglected. It is in the department of foreign exchanges that the library is reaping its most valuable benefits. With the number of volumes (100) now allowed yearly for that purpose, in time all foreign institutions which issue publications of interest to medical men, and which desire to exchange, may reasonably be expected to be included in the annual catalogue of additions to the library. In establishing this system, some of the volumes sent out will probably not be honored by a suitable return, but this is unavoidable, and year

by year these institutions will be eliminated from the list.

Here follows a catalogue of the books received during the year, and a statement of small expenses incurred amounting to $37.20.

The report was referred for publication.

Dr. E. R. Squibb, of New York, then resumed the reading of his paper on the revision of the United States Pharmacopœia. The advantages of his plan were detailed at great length, and several communications from leading medical authorities were read. By a vote taken on the previous day, Dr. Squibb was limited to twenty minutes in order to allow the opponents of the proposed measure to have a show. On motion, this vote was reconsidered, the lecturer having just about gotten to the beginning of his discourse when his time ran out. The vote was close, but enough to give him another twenty minutes, and he ran merrily along for that time. In summing up the lecturer said that there were two points to consider: first, whether the medical society desired to change its Pharmacopœia or not, and if so, who had the power to decide as to how the revision should be made. The Association had three courses before it. The whole subject might be laid on the table, and this would be most acceptable to the speaker, who would thus be freed from all further responsibility in regard to a much disputed question, the discussion of which had already developed much personal feeling. In the second place, they might prepare a plan and offer it to the profession, allowing it to stand upon its merits. And in the third place, they might appoint through the Nominating Committee, a committee of three to prepare a report for presentation at the meeting next year. He would be glad to listen to discussion, and suggested that it be confined to a consideration of these three points. He moved, therefore, that the whole subject be laid upon the table.

This method of promoting discussions did not exactly meet the views of the audience, and was withdrawn.

NOMINATIONS.

The Chairman of the Committee on nominations offered a partial report, and asked a temporary change in the order for

the purpose of receiving it. This was granted, and the Secretary read the following recommendations:

For President, T. G. Richardson, of Louisiana; Vice Presidents, J. P. White, New York; Moses Gunn, Illinois; G. W. Russell, Connecticut; A. Dunlap, Ohio. Chairman of Section of Medicine, Materia-Medica, and Physiology, A. L. Loomis, New York; Secretary J. H. Etheridge, Illinois. Chairman Section of Obstetrics and diseases of Women and Children, E. W. Jencks, Michigan; Secretary, H. O. Marcy, Massachusetts. Chairman Section of Surgery and Anatomy, H. H. Smith, Pennsylvania; Secretary, E. Z. Early, Arkansas. Chairman Section of Medical Jurisprudence, Chemistry and Psychology, W. Kempster, Wisconsin; Secretary, E. A. Hildreth, West Virginia. Chairman Section of State Medicine and Public Hygiene, J. L. Cabell, Virginia; Secretary, A. J. Marsh, New Jersey. Next place of meeting, Buffalo, N. Y. Time, first Tuesday in June, 1878.

The report was unanimously adopted.

Discussion on Dr. Squibbs' paper was then commenced, and Dr. H. C. Wood, of Philadelphia, denied that any pecuniary considerations affected the action of gentlemen on this matter. It was a point of honor with them, and not of money. His uncle, Dr. George B. Wood, one of the earliest Presidents of the Association who was unable to be present on account of failing health and intellect, expressed his belief that the proposed measure meant a disruption and dissolution of the Association. That gentleman did not want the Association to put upon record that he had prostituted his position, and that conventions had been manipulated in order to allow him and Dr. Bache to build up their private fortunes out of the present Pharmacopœia. He did not pretend to speak for the University of Pennsylvania, but expressed his own opinions entirely. He contended that the present system of a decennial convention to revise the Pharmacopœia was a good one, and that no necessity existed for any such change as that proposed. Dr. Squibb had stated that if the Association prepared a Pharmacopœia it would have to do it alone. Another would also be prepared in this case, and that of the Association would have to contend against it.

It would not be a fight between the University of Pennsylvania and the American Medical Association, but between a Pharmacopœia recognized by the body of pharmaceutists and that indorsed by a majority of the Association. The consequence would be that two Pharmacopœias would exist side by side, and to which the law of the survival of the fittest would not apply. One would be used in one part of the Union; the other in another section only. The American Medical Association could not agree even on so simple a matter as the nomenclature of disease, and it was not at all likely that they would be able to agree on such a measure as that proposed by Dr. Squibb. He looked upon the Association as a gathering of medical men for social and scientific intercourse, and not as a despot to dictate what opinions a man should hold.

Dr. Brodie, of Michigan, offered the following resolution:

Resolved, That a committee of five be appointed by the President, to whom shall be referred the paper of Dr. Squibb, and all the papers on the subject of the Pharmacopœia, with full authority to examine into the whole question as to the propriety of this Association being a factor in whole or in part in its publication, and report at the next annual meeting.

Dr. N. S. Davis believed that if the Association entered as a factor with any other body in the preparation of a Pharmacopœia, it would have to assume whatever of praise or odium attached to that work. While yielding to none in his respect for the Association, he held that they should keep free from incurring pecuniary obligations, from purchasing copywright interests, and contracting entangling alliances. He believed in allowing the Convention to do its work, and to send such men to that Convention as it could depend on. He favored the indefinite postponement of the whole matter, and made a motion accordingly.

Dr. Brodie withdrew his resolution, and the motion of Dr. Davis was at once put to a vote and carried by a large majority.

The Association then adjourned till 9:30 a. m. next day.

FRIDAY, JUNE 8, FOURTH DAY.

After opening routine business, C. M. Fitch, M. D., of Chicago, was elected a member of the association by invitation; and Drs. L. H. Chew, of Naperville, Ill., and S. O. Ritchie, of Chicago, were elected permanent members.

Dr. Atkinson, the Secretary, presented a list of charges against the Michigan State Medical Society, the import whereof was that it had aided and abetted the Michigan University in graduating scholars in an irregular and exclusive medical course of study. Referred to Judicial Council.

He submitted also the report of the Permanent Secretary, made in conformity with an order issued in 1875, on State Boards of Health, showing that circulars had been forwarded to the Executive of each State in which a health board had not already been organized, urging the need and utility of such boards, and soliciting that the subject be brought before the legislature; that State Boards now exist in Alabama, California, Colorado, Georgia, Illinois, Louisiana, Maryland, Massachusetts, Minnesota, Mississippi, North Carolina, New Jersey, Tennessee, Virginia and Wisconsin, and that resolutions had been introduced into other State Legislatures to effect the establishment of boards; and suggesting that the committee be continued.

This report was ordered to be entered upon the minutes.

The Secretary also read a report by Dr. Seguin, of New York, on the subject of uniformity in medical observation and record, showing the paramount need that existed for such uniformity, and recommending that the association send delegates to the convention of 1880, who should advocate the devisement and institution of a plan to secure more systematic operation in that matter. Received and entered.

The Secretary moved that Thomas M. Dysdale, of Philadelphia, be appointed a delegate to foreign medical associations; and that Clifton E. King, of Boston, be appointed likewise to the Canada Association. These gentlemen were so appointed.

The minutes of the Judicial Council were entered without reading.

Reports from the Chairman of the Sections on Obstetrics,

State Medicine and Public Hygiene, Surgery and Anatomy, Medical Jurisprudence, and Practice of Medicine were duly submitted by the Secretary and referred to the Committee of Publication.

The Nominating Committe presented the following names for officers, and they were elected:

Assistant Secretary—E. W. Brush.

Committee of Arrangement—T. F. Rochester, J. F. Miner, E. R. Barnes, C. C. Wyckoff, M. B. Folnele, W. C. Phelps, E. W. Brush, all of New York.

Committee on Publication—W. B. Atkinson, F. M. Drysdale, A. Fricke, S. D. Gross, C. Wister, R. J. Dunglison, of Pennsylvania; W. Lee, of the District of Columbia.

Treasurer—R. J. Dunglison, of Pennsylvania.

Librarian—W. Lee, District of Columbia.

Committee on Library—Johnson Elliott, District of Columbia.

Members of Section on State Medicine and Public Hygiene—J. Cochrane, Alabama; A. M. Carrigan, Arkansas; W. F. Cheney, California; C. Denison, Colorado; C. A. Lindsley, Connecticut; W. Marshall, Delaware; T. Antisell, District of Columbia; J. P. Logan, Georgia; H. A. Johnson, Illinois; T. M. Stevens, Indiana; A. G. Field, Iowa; D. W. Stremont, Kansas; S. Brandles, Kentucky; S. M. Berriss, Louisiana; E. F. Sawyer, Maine; C. H. Ohr, Maryland; H. J. Bowditch, Massachusetts; H. P. Baker, Michigan; C. M. Hewitt, Minnesota; W. Johnstone, Mississippi; J. W. Trader, Missouri; M. W. Russell, New Hampshire; E. M. Hunt, New Jersey; E. Harris, New York; J. Comegys, Ohio; B. Lee, Pennsylvania; E. M. Snow, Rhode Island; R. A. Kinloch, South Carolina; T. A. Achison, Tennessee; A. E. Carothers, Texas; J. L. Cabell, Virginia; L. C. Butler, Vermont; J. Frissell, West Virginia; E. S. Griffith, Wisconsin; J. W. Betton, Florida; C. J. O'Hogan, North Carolina; J. S. Billings, United States Army; J. Wilson, United States Navy.

Committee on Necrology—J. M. Toner, District of Columbia, Chairman; W. H. Ross, District of Columbia, Secretary; J. W. Barclay, Alabama; T. E. Merrell, Arkansas; M. Baker, California; G. W. Russell, Connecticut; L. P. Bush, Delaware; W. W. Johnson, District of Columbia; T. S. Hopkins, Georgia; J. H. Hollister, Illinois; J. Moffit, Indiana; S. B. Thrall, Iowa; L. P. Yandell, Kentucky; S. C. Gordon, Maine; A. L. Norris, Massachuseets; D. J. McKerr, Maryland; W. W. Breakey, Michigan; E. C. Cross, Minnesota; A. J. Steele, Missouri; J. Braine, New Jersey; N. J. Pittman, North Carolina; J. Jones, Louisiana; G. M. Smith, New York; G. Mitchell, Ohio; W. C. Warriner, Oregon; H. C. Wood, Pennsylvania; C. W. Parsons, Rhode Island; A. N. Talley, South Carolina; J. B. Lindsley, Tennessee; J. H. Stalnmaker, Texas; W. D. Hooper, Virginia; D. Mason, Wisconsin; O. F. Fassett, Vermont; P. F. Whitehead, Mississippi; W. L. Schenck, Kansas; L. G. Hill, New Hampshire; R. W. Haslitt, West Virginia; J. J. Woodward, United States Army; J. Wilson, United States Navy.

Judicial Council—J. K. Bartlett, Wisconsin: T. F. Staples, Minnesota; E. Grissom, North Carolina; W. F. Robertson, S. Lilly, New Jersey; W. M. McPheeters, Missouri; A. T. Woodward, Vermont. The foregoing in place of seven whose terms expire by limitation. P. O. Hooper, of Arkansas, in place of A. Dunlap, whose term expires in 1878.

Committee on Prize Essays—E. M. Moore, F. Lothrop, W. Miner, H. R Hopkins, E. W. Dean.

The above were in addition to those elected on the previous day.

Dr. T. D. Fitch moved to amend in Section 2, the article relating to permanent members by striking out, "*and such other members as may receive the appointment by unanimous vote.*" The amendment went over under the rules.

A resolution was also offered through the Secretary to create a section on Ophthalmology, Otology and Laryngology. It was laid on the table until the next meeting.

Dr. N. S. Davis moved the following amendments to the By-laws which lie upon the table until the next annual meeting:

1st. Strike out the whole of the paragraph on page 680 of the Volume of Transactions for 1876, which paragraph commences with "Papers appropriate to the several Sections" etc.

Reasons.—The provision is impracticable and in conflict with the duties of the Committee of Arrangements as specified in the Constitution.

2d. Strike out the third paragraph of Section VIII., and the second paragraph of Section IX., page 683, both relating to medical colleges.

Reason.—Both are obsolete and useless, as medical colleges are no longer represented in the Association.

The report of Drs. J. J. Woodward, U. S. N., and Edouard Seguin, on the progress of uniformity in the means of observation and record of physic, was submitted as follows:

"During your last session you have voted that the question of uniformity in the means of medical observation and of medical records should be presented in your name to the International Medical Congress soon to meet in Philadelphia. This Congress received your communication with an interest enhanced by the warm recommendation of its illustrious President, Prof. Samuel D. Gross, in his inaugural address; and the International Medical Congress, in its turn, voted the

sending of delegates to the next International Medical Congress, which is to meet in Geneva, September 1877, with the special commission of pleading there the cause of medical uniformity. Such has been the official progress of this question since your last meeting.

Its technological progress consists (a) in the perfecting and cheapening of the sphygmograph, but not yet to the point of making it as popular as the thermometer. (b) In the reduction of urinometers and microscopes to a uniform standard and to pocket size. (c) In the invention of simple colorimeter and globulimeters, which separately realize the hopes induced fifteen years ago by the brilliant invention of Prof. Mantagazza. (d) The more important conquest of this year has been the acceptance of the metric system by the New York State Medical Society.

It may not be out of place to add that the demand for instruments of positive observation has more than decupled in the last ten years, and that the use of uniform records of medical observation has increased from a few hundreds to thousands annually; a double progress entirely due to the initiative of this great progressive body, the American Medical Association.

During the same period the pharmacists have made parallel efforts to bring uniformity in the products of their trade, which is an accessory to our art; and we must acknowledge that they are somewhat ahead of us. They will be strongly represented in the International Medical Congress of Geneva, and it would be more creditable for them than for us, were they the first to agree upon the terms of this long longed-for uniformity on our own ground. Pharmacy would gain nothing and physic would lose much by leaving disconnected two movements which tend to establish uniformity in the pharmacopœia and in the practice of physic; both uniformities being twin sisters from the same spirit, the aspiration of the human mind toward the next synthesis.

Therefore your reporters on this subject propose that the American Medical Association send special delegates to the International Medical Congress at Geneva—as it did so effec-

tively to the International Medical Congress of Brussels, in 1875—to advocate the adoption of a progressive uniformity of means of medical observation and records, with the concurrence, if possible, of the members of this Congress who will be found there engaged in advocating the application of uniformity in this and other departments of science."

The Association adopted the conclusions of this report in its last general meeting, and fused the delegation to that effect with the other delegation to the permanent medical societies of Europe for 1877-'78, naming Dr. Edouard Seguin, of New York, President of this mixed delegation.

Dr. J. W. Singleton, of Paducah, Ky., offered the following in behalf of the Kentucky State Medical Society:

WHEREAS, It has come to the knowledge of the members of the American Medical Association that a bill known as the Morrison bill for the discontinuance of the tariff on quinine is, at this time, before the Committee on Ways and Means of the Congress of the United States; and

WHEREAS, The welfare of a large proportion of the people in the Western States and Territories, is concerned in the issue of this bill, as well as any movement which will enable them to obtain quinine at a less cost than the enormous prices now paid by the consumer; and

WHEREAS, The opposition to this bill set forth by the manufacturers and trade, does not represent the desire of those who are engaged in the relief of suffering and want, but ignores entirely the necessities of a large population, many of whom are engaged in cultivating the soil and opening up new resources of wealth to the Government in malarial districts; and

WHEREAS, Principles of justice and humanity alike demand free quinine and an open market for the competition of European manufactures; therefore, be it

Resolved, That the American Medical Association approve the passage of the Morrison bill for the repeal of the tariff on quinine, and respectfully insist that said bill shall become a law.

Resolved, That the Permanent Secretary of this Association be required to transmit the foregoing preamble and resolutions

to the Chairman of the Committee of Ways and Means of the Congress of the United States.

The resolutions were adopted by a unanimous vote amid applause.

A resolution was passed expressive of the satisfaction the association feels at the unanimity fast coming to exist between the profession in the North and South.

Dr. Lewis A. Sayre was appointed a delegate to the British Medical Society.

Thanks were rendered to Francis Gurney Smith, for his efficiency in transacting the duties of Chairman of the Committee of Publication, from which position he has retired, after many years' service,

Dr. Bowditch having temporarily retired from the chair, offered the following resolution:

Resolved, That the association recommend to the chairmen of the sections, at any place at which we may hereafter meet, the propriety of obtaining from our ablest associates in various parts of the country, papers to be presented to the sections, and that due notice of the names of the writers be given in the medical journals before the meeting.

He moved also that all papers to be published be submitted to the examination of experts whose names should be unknown, and only the most worthy should be published.

Dr. Woodward, of Washington, then offered the following resolution:

Resolved, That from this meeting and hereafter, the practice of printing in the transactions of this association the so-called verbatim reports of the debates in the sections, be limited to the papers presented and recommended by the sections for publication, and such as may be actually read and offered by each section during the session of the convention.

On motion of Dr. James P. White, of Buffalo, the entire matter was referred to a committee of five to report at the next annual meeting, of which committee Dr. Bowditch and Dr. N. S. Davis were to constitute two members.

Dr. Bodie, of Michigan, submitted a series of resolutions thanking the committee of arrangements for their liberal deal-

ings with visiting doctors, and for their excellent programme; the people of Chicago at large for their hospitality, especially those who gave receptions to the delegates; the Northwestern and other railroads for their many courtesies, and so forth. They were adopted.

Dr. Squibb asked leave to withdraw his report on the pharmacopœia, which was allowed.

President Bowditch then invited the President-elect, T. G. Richardson, of Louisiana, to ascend the platform, and delivered his retiring address. He thanked the association for the distinction it had conferred upon him the past year. He closed his remarks by congratulating the society upon its new President, and extending, as he said, the hand of Massachusetts to Louisiana, thus signifying the obliteration of all sectional ill feelings.

The act was greeted with a burst of applause, and Dr. Richardson responded in becoming terms, frequently interrupted by applause. As he observed that God was to be thanked that we had now become a national family of States, the expression of concurrence by the delegates was earnest and protracted. Though he could not hope to fill the place of his worthy predecessor, yet he hoped that from the shreds of his incapability a cloak of charity might be woven to cover his faults. He thanked the association for the distinction he had received.

The association then adjourned to meet in Buffalo, N. Y., the first Tuesday in June, 1878.

REPORTS OF THE SECTIONS.

SECTION I. PRACTICAL MEDICINE, MATERIA MEDICA AND PHYSIOLOGY.

(Reported by Wm. J. Maynard, A., M. M. D.)

First Day, June 5th.

Treatment of Croupous Pneumonia. By A. B. Palmer, of Michigan.—In the absence of Dr. Palmer the paper was read by Dr. N. S. Davis. He recognized three forms of this disease, croupous, catarrhal and interstitial. He regarded it as a specific

inflammation, a peculiar exudation and a self limited disease. The percentage was 6 1-10 of all diseases, and by far the largest number ran a mild course and recovered in about 10 days, but he thought the lungs never fully recovered their original healthy condition. He said there was no lack of discussion among those advocating the heroic, stimulant and expectant treatments. He regarded the heroic plan of managing these cases, especially among the poor, as worse than useless. He had formerly thought that opiates would cut short the disease in the outset quicker than anything else, and always used them; after their effect, giving a few grains of blue mass, followed by a saline cathartic, and then the eliminating treatment by acetate of potash, etc. He used to resort also to bleeding in plethoric subjects, but this would never cut short the disease. Since 1865, he had used quinine in every case treated, and with great effect; had seen many cases with no malarial poisoning, and with full symptoms of the disease, cut short very speedily by full doses of this drug. He agreed with Juergensen, that "pneumonia was a general and specific disease, not dependent upon a local cause, but belonged to the infectious diseases, that nature cured, and all that was necessary for the physician to do, was to sustain the patient and to prevent the failure of the heart's action, which the fever had a tendency to do." J. relied upon the cold bath and large doses of quinine in his treatment. He took issue with Juergensen that the disease always ran a regular course, but thought that he had been able to abort it in many instances by large doses of quinine, and the reports of others had shown the same results. He thought the cases shown by J., were mostly in hospital and in consultation, and therefore seen too late to abort. He contended that pneumonia was not an obstinate type of disease; that opium would sometimes arrest it early in the attack; so would alcohol or veratrum viride. These agents, however, would depress the heart's action secondarily, and this must be guarded against. Quinia does not have this action, but more speedily relieves internal congestion, induces perspiration, diminishes exudation, and acts through the nervous system. A good deal depended upon the

time of administration. In 12 to 24 hours after the chill, he gave 6 to 10 grs. of quinia with $\frac{1}{8}$ of a grain of morphia, afterwards 4 to 8 grs. every 2 to 3, hours with smaller doses of morphia, until 50 or 60 grains of the quinine had been taken. Sometimes 25 grains would be sufficient, with this came a marked diminution in the pulse, a fall of temperature, slower respiration, in short the disease was aborted. All that would be necessary after this was a laxative of blue mass, followed by a saline cathartic and elimination by the kidneys. If the disease was seen later in its course, the morphia should be given in smaller quantities but the quinia in the same doses.

In the discussion of the paper, Dr. Gallagher thought the disease would get well without much treatment under good hygienic rules and good diet, and that the disease was much milder than it was 30 years ago; then the fever and pain being more intense required the lancet; but at the present time he regarded it improper. He doubted very much the power of quinine to control the disease when there was no malarial complication. He depended upon aconite and good diet.

Dr. Hibbard, of Indiana, always looked for the natural tendency of the disease, and was careful about using remedies that would do any harm.

Dr. Scott, of Ohio, said, if his pathology was correct, he could assist very much the obstruction to the flow of blood. In his opinion, the teachings of Todd and Ziemsen had done a great deal of harm, and the lancet and calomel to-day were as potent as any remedies at our command. He did not believe that the lungs never recovered from an attack of this kind, but thought that they fully recovered their functions, even if exudation was never thoroughly absorbed.

Dr. Schenck, of Kansas, differed from his Indiana friend (Hibbard), and observed that a great amount of good could be done by the physician. He liked the supporting plan of treatment better than anything he had ever tried, and was inclined to agree with Dr. Palmer in the assertion that quinia was a very powerful agent in controlling the disease, as he had once an occasion to try it on his own person when suffering from such an attack.

Dr. Murphy, of Cincinnati, did not believe that quinia, nor any other drug would be able to abort pneumonia. The very best authorities agreed that the disease would run a natural course and was self limited. In his opinion there was not much of value in the paper anyway. He thought the main thing for the practitioner to do, was to look out for complication, the pneumonia would get well of itself.

Dr. Yandell, of Kentucky, did not believe pneumonia a disease of itself, but rather the result of malaria or a catarrhal condition. The cause should always be found out and treated, whether this be malaria, struma or syphilis. He had seen malaria everywhere, and did not believe there was a place known where it might not abound. It was the cause of most acute diseases.

Dr. Carpenter, of Iowa, thought that in this disease the patient should be well supported from the start.

Dr. Bailey, of Louisville, thought the disease was the same now as it always had been, and always resorted to antiphlogistic remedies. He thought the cold bath, as had been suggested, very injurious, but believed he had seen the very best results from quinine.

The Effects of Medicine in Small Doses. By Dr. John Morris, of Maryland.—The writer thought that altogether too much medicine was given by the profession; that a great many drugs were used in such quantities as could only in part become absorbed; that they then acted as irritants, or passed away without doing any good. He spoke at length of the following drugs, the peculiar action of each when used in minute doses, and the diseases in which they were particularly valuable, *i. e.*, Calomel, Iron, Quinine, Alcohol, Tart, Antimony, Ipecac, Aloes, Rhubarb, Opium, Gelseminum, Squills and Ergot. Nothing new was elicited from this resume of materia medica, and the paper closed with the following deductions:

1st. That the true physiological effect of medicine may be best attained by the administration of small doses frequently repeated.

2d. That medicines thus given are cumulative in their operation.

3d. That the effect of remedies is greatly increased by combination, the manner of preparation, the time and mode of administration.

4th. That large doses of remedies act as irritants; that they produce an abnormal state of the blood, as is evidenced by such conditions as narcotism, alcoholism, iodism, ergotism and bromidism.

5th. That more especial attention should be given at the bed side to the influence of remedial agents, to the end that a greater certainty may be exercised in their prescription.

Second Day, June 6.

Report on Clinical and Meteorological Records. By Dr. N. S. Davis, Chicago.—After speaking of the importance of the work under consideration, as the only true method by which we may be able to get at the cause of disease, he hoped for a more extended co-operation on the part of medical men in different parts of the country. For some time past he had been making close observations in this city on the subject. He produced statistics and abundant evidence from meteorological reports, not only here but in Cairo, Davenport and Omaha, to show that the meteorological changes in these parts, giving a high range of temperature and humid atmosphere, co-existed with certain body changes.

The conclusions of the paper were:

1st. That bowel affections begin their annual prevalence when continuous warm weather prevails.

2d. That every subsequent occurrence of several days and nights of high temperature, causes new attacks to be incurred throughout the month of July, less in August, and still less in September.

3d. That it is not simply extreme heat, but the continuance of it for several days.

4th. That continuous high heat, to be effective, must follow a protracted season of cold.

5th. If we compare these deductions with mortality, we find that they are confirmed.

Cases Showing the Influence of Colorado Climate in Consumption. By Dr. Chas. Dennison, Colorado.—This paper was a supplement to a report made by him last year. He said he wished to avoid the criticism of a certain lengthy report of doubtful cases, "that its publication was very unfortunate for the writer, as well as for the invalids;" that he preferred to look mainly on the bright side, to run the risk of his conclusions being called rose colored by the inconsiderate reader. At the same time he felt keenly the responsibility of drawing conclusions which would lead those seriously diseased to try to prolong their lives in the Rocky Mountain region. The pros and cons should be equally and faithfully represented till at length we could decide, by the evidence of past experience, the best course for all forms of phthisical patients to pursue, so far as climate is concerned. He then gave the history of six favorable and six unfavorable cases, that were chosen from the records of over 100 phthisical patients that had been under his care. From the analysis of these he concluded, that the favorable influence of high altitude in phthisis is best shown in the incipiency of chronic inflammatory and hæmorrhagic cases, and in others as these characteristics exist, the measure and severity of disease, the inheritance and mental state being taken into account, and a partial recovery necessitating a permanent residence.

On the other hand, the unfavorable influence of high altitude on phthisis is shown as the disease approaches or is complicated with the following conditions: Cardiac disease associated with increased labor and abnormal activity, the stage of softening in acute cases (especially with a uniformly rapid pulse and high temperature) associated with extensive deposit, irritable nervous state, and lack of courage to do in order to be well.

Dr. Bowditch, of Boston, referred to cases where the lower part of the lungs were first affected, and the patients visited California with considerable benefit, and finally recovered en-

tirely after a residence of a year or more in Europe. He had observed also that patients would go to Colorado and other places and get better, and the moment they returned to their old locality they would get worse again. He had always been doubtful about sending patients away from home when they had reached the stage where crackling sounds could be heard in the lungs. He was of the opinion that if patients were sent to Colorado, they should remain there permanently, if they received any benefit from such a change of climate.

Dr. Ulrich, of Pa., remarked that there was a general agreement in the profession, that the object of treatment in phthisis was to better the general condition of the patient, and support nutrition by proper food, and surround him with circumstances favorable to the proper assimulation of that food. He was living in a manufacturing city, and among the mills were found many cases of phthisis, and it became his duty to prescribe for such cases very often. Whenever he was able to induce them to leave their in-door employment, and the impure atmosphere, for some more active, out-door occupation, and surround them with better hygiene, he found that the disease was very much ameliorated, and in some absolutely cured. He thought it was getting too fashionable to send patients away, when a radical change of occupation and living at home would be equally beneficial.

Dr. Kingsley referred to the fact, that patients going from St. Louis to Colorado were very much benefited, but upon returning, the disease had developed rapidly, and the patients died in a very short time.

Dr. Scott, of Ohio, was inclined to agree with Dr. Ulrich, that by change in occupation and mode of living at home, about as much good could be obtained as by sending patients away.

Third Day, June 7.

Report of Committee on Bovine Vaccination. Dr. H. A. Martin, Mass.—Dr. M. said this work was first introduced by him in 1870, and his is now the only original part of the Beaugency stock as it existed in Paris before the war. He presented in full the disadvantages of the other method when

compared with the one under discussion. Regarding the arguments that have been offered against the system, *i. e.*, that the virus could not be kept fresh for any length of time, the greater liability to the production of erysipelas, herpes, etc., he declared that these results do not follow when proper care is exercised in selection and management. The claims in favor of this mode of vaccination were:

1st. Its unlimited supply. He had furnished 5,000 points a day, and could produce 50,000 if necessary.

2d. Its absolute immunity from the possibility of inoculating other diseases. To show that syphilis could be inoculated by vaccination, he related the fourteen cases that were reported by Hutchinson, of London.

At this point the speaker's time expired, and he was obliged to stop.

Dr. Scott, of Ohio, inquired of Dr. Martin whether he had any experience with vaccination with matter taken from a heifer that had been inoculated with small-pox. Dr. Martin replied that he had no experience of his own, nor should he ever have, because he was certain that small-pox could be transmitted in that manner.

Dr. Griffith inquired of Dr. Martin if he had any knowledge of any authentic case in which variola had occurred after the use of animal vaccination. Dr. Martin replied in the negative, and added his experience in confirmation of the statement that vaccination and re-vaccination rendered the person safe for life. He did not believe that a satisfactory re-vaccination was ever followed by small-pox.

On the Recognition and Management of the Gouty State in Diseases of the Skin. Dr. L. Duncan Bulkley, New York.—Dr. B. remarked that this peculiar condition of the system was frequently overlooked by practitioners in treating chronic skin diseases, and that the gouty state was not often treated unless there was actual deposit and pain in the joints. But if we would do the most good in these cases, we must go further back than the actual blood condition, and arrest the trouble in its earlier manifestations. These manifestations were generally disordered conditions of the stomach,

a train of phenomena known as dyspepsia. There was usually flatulence and eructation after eating. Impairment of appetite, pale and flabby tongue, constipation, obstruction to the flow of bile, palpitation of the heart and dyspnœa, were common, also languor and inaptitude for exertion, drowsiness after meals, and waking from sleep in an irritable condition. The urine should be frequently and thoroughly examined in every case, and deductions made. In the management of these patients great care should be given to diet and hygiene. To keep up a proper action of the liver, and to relieve constipation, he relied upon blue mass and colocynth. In other cases he gave aloes and iron. For other primary dyspeptic symptoms he was very careful to select such drugs as would best meet the indications. He had found diuretics very valuable, and generally preferred acetate of potash in 30 grain doses, a few hours after meals. He had used also the salts of lithia and Kissingen water with much benefit.

Dr. Hibbard, of Indiana, thought there was great difficulty in specifying what kind of diet in any individual case was best adapted to the disorders of the digestive apparatus, and that we made a mistake if we laid down any definite rules with regard to it.

Dr. Cabell, of Virginia, inquired of Dr. Bulkley whether he had used any other mineral water except those he had mentioned. Dr. Bulkley replied he had used the German bitter waters, but had not been as well satisfied with their effects as with those produced by repeated doses of Kissingen. With reference to the effect produced by visiting springs, he thought it was the effect produced by the change of climate upon the gouty state, rather than any direct effect upon the skin disease, which accounted for the good results which sometimes followed a visit to those places, and the use of the water. Dr. Cabell thought that the thermal baths had a very good effect in these troubles. In using the German mineral waters, his experience had been different from Dr. Bulkley. He coincided entirely with Sir Henry Thompson in ascribing to them, when taken regularly in small quantities for months, a much more permanent effect than could be expected from

the use of any of the antacids, such as lithia or any other alkali.

Dr. Duhring, of Philadelphia, said he wished to corroborate what Dr. Bulkley had said; he had, however, some difficulty in making out just what Dr. B. meant by the gouty state, but as that was a topic too broad to be entered upon at that time, he wished to ask, what diseases of the skin he included in that condition known as the gouty state? He presumed eczema, psoriasis, etc. Dr. Bulkley replied that he considered acne, furuncles, lichen, and urticaria as manifestations of the gouty state.

A Study of Nine Hundred and Sixty-five Cases of Chronic Pulmonary Diseases. By Dr. F. H. Davis.—This record showed that of this number, chronic catarrhal bronchitis was the most common, and 403 cases are recorded. Dr. D. thought that in chronic bronchitis, if the patient could avail himself of that expensive prescription, a change of climate, a cure could be obtained. In 15 cases where this could not be done, he had effected a cure by compressed and rarefied air inhalations. He had found that inhalation of compressed air, followed by exhalation into rarefied air, diminished the capillary congestion and consequent hypertrophy of the mucous lining of the bronchi, and restored the tone and contractility of these vessels. To be efficient it should be followed up for six to twelve months, and accompanied by a strict regulation of the habits of living, clothing, exercise, etc. In these cases the most efficient drug he had found, was the muriate of ammonia in combination with some anodyne and expectorant. The addition of six to eight drops of chloroform was very beneficial in combination with each dose to some otherwise intractable cases. Among this whole number there were but 30 who showed signs of any constitutional impairment, but the general vigor, appetite and digestion was up to the ordinary standard, proportional to the age.

This record contained 119 cases of chronic bronchitis, presenting a special gastric and nervous complication. In addition to the usual physical signs of chronic catarrhal bronchitis, we find in these cases symptoms of indigestion

and gastric irritability; a lack of tone of the digestive organs, a tendency to acidity and fermentation following the ingestion of food. These cases occurred among those who had been addicted to the excessive use of alcohol and strong tea. In these cases treatment should be directed primarily towards controlling the gastric and nervous irritability. He had used with the most success, a combination of liq. ammoniae acetatis, syr. ipecac and tinct. opium. The œnothera biennis, (evening primrose) either in decoction or the fl. ext., would relieve promptly some of these cases where other means had failed.

There were recorded 283 cases as chronic rheumatic bronchitis. In these cases auscultation revealed sonorous and sibilant rales, rather than the mucous rales of the catarrhal variety, with harsh, dry cough and scanty expectoration. Associated with this was more or less evidence of general muscular and articular rheumatism of a chronic grade. In these patients colchicum acted almost as a specific, affording prompt and certain relief. The record contained 123 cases of phthisis pulmonalis; 56 of these were hereditary, and the remaining number were caused by apparently different agencies at work, *i. e.*, alcohol, constitutional syphilis, extreme poverty and consequent unhealthy living and surroundings, together with insufficient clothing, exposure, hard work, etc. He thought the proper essentials to success in the treatment of these cases, were proper food and clothing, good hygienic surroundings, regular habits of living, out-door exercise, but not with prolonged exposure to inclement weather, and a regular systematic practice of deep respirations. This could be best attained by the inhalation of compressed air, as before mentioned—an apparatus for which he fully described. The only other element of treatment was cod-liver oil, or ext. of malt, to build up the strength of the patient.

Dr. Scott, of Ohio, directed the attention of the section to the fact that Dr. Flint had published a monogram upon tuberculosis of the lungs, in which he said "that the deposit took place in the air vesicles." He did not believe that; he thought that any deposit which took place in consequence of arrest in the activity of the circulation of the lung, occurred

outside of the air vesicles. Any condition of the atmosphere, or a poisoned condition of the blood, such as would interfere with the functions of the lungs, would cause an arrest of the circulation at that point, and not in the air vesicles.

Dr. Lester, of Missouri, said that Dr. Davis had stated that consolidation of the lung, resulting from bronchitis, occurred but rarely in infants. He believed that catarrhal inflammation of the bronchial mucous membrane was of frequent occurrence in infants, and that they died of collapse of the lung as a result, but as a chronic condition it was rare. He thought, also, that nine-tenths of all the cases of consumption were of inflammatory origin, following catarrhal pneumonia. He thought that tubercular phthisis was a rare disease in the western part of the country, especially in the mining districts.

Dr. Waterman, of Indiana, remarked that while he did not discard the use of local remedies in the treatment of consumption, the principal theory was, how to increase healthy blood, and an active circulation through the lungs. His plan was to stimulate the stomach with whisky, then give it good food and stimulate digestion by the same.

Dr. Ulrich, of Pennsylvania, said, in regard to the inflammatory origin of consumption, that he had lived for twenty years on the banks of the Mississippi, in Louisiana, and had never known a case of tuberculosis to originate in that locality, and yet the people suffered a great deal from pneumonia. He then reiterated what he said in a former discussion, that consumption is caused by the wretched manner in which some people live, and their in-door employment.

SECTION II. OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Reported by EDW. WARREN SAWYER, M. D.

FIRST DAY, JUNE 5.

Byrd, Ills.—Presented a paper, read by Battey, on some of the diseases requiring dilatation of the female urethra. A number of cases were cited. The first was that of a vascular growth entirely surrounding the meatus of the urethra. It had

been treated as a stricture; with the écraseur and scissors a small vascular growth was removed without difficulty. Subsequently dilatation of the urethral canal entirely cured the urethrismus. The case was illustrated by drawings of the parts with the growth in situ and after removal.

Other cases were cited to illustrate the method and ease of dilating the female urethra; for vesical tenesmus, etc.

In the discussion, Marcy, Mass., said that in a case of his, he had removed a growth as large as a cherry; the removal was not dangerous. Three years had now elapsed without a recurrence.

Smith, Ia.—Had removed the growth in two cases with the scissors without difficulty or danger.

Jenks, Mich.—Rose to add that in all instances these growths should be removed, and that no complicated instruments were needed to dilate the female urethra. He used a series of successive sizes of conical rectal bougies until the finger could be easily passed.

Jackson, Chicago.—Thought it often difficult to find these flat and but slightly elevated growths within the urethra. To facilitate diagnosis and removal, he used a conical glass speculum with a fenestrum, into which the growth dropped. The base of the growth he usually touched with fuming nitric acid.

Marcy, Mass.—Said that he had always used the method and speculum spoken of by the last gentleman, thinking that was the usual procedure.

Kimball, Mass.—Presented a paper, read by Dr. Martin, on extirpation of the uterus. After giving an account of the early history and results of the operation, and considering in detail the observations of Péan and Caternault, the writer proceeded to examine the question, Is the operation ever justifiable? It was a sad comment, that nearly nine in ten cases resulted in death. In Scotland all cases were fatal except the three successes of Keith. Death is caused by shock, hemorrhage, inflammation and septicæmia.

A case was detailed, which the reader said might be called a specimen case. A woman had presented herself to him with

a hard, movable tumor, measuring seven or eight inches in its longest diameter, which was easily recognized as an interstitial fibroid. The patient was sent away, and told that nothing could be done for her. Two years afterwards she returned, but so changed that she was not recognized. Nor was the diagnosis of the tumor at that time made out. The patient insisted upon an operation which was undertaken under the conviction that the tumor was as likely to be ovarian as uterine. Upon opening the abdomen, an unusual appearance was presented by the omentum, which had never before been met with by the writer; viz., innumerable cysts, varying in size from a robin's egg to a pea, everywhere studded the omentum. The omental mass was strangulated and cut off. The entire uterine mass was now removed; it weighed thirty-one pounds. The long pedicle was stitched into the lower end of the abdominal incision. Recovery was perfect at the end of the twelfth week.

Without denouncing the operation, it is one which is justifiable only in extremely rare instances. During a period of twenty years, it seemed justifiable in but two or three instances. Undoubtedly it is most often performed on account of an error in diagnosis.

Martin, Mass.—Spoke of the noted New England case in which it was not known, till after the operation, that the uterus had been removed; the operation was recovered from.

Kimball, Mass.—Feared it might look like vanity, but the first operation which he did in 1853 was the first, so far as he knew, which was undertaken deliberately—the diagnosis being established. Altogether, he had operated twelve times with six recoveries. One was an instance of pedunculated fibroid, and in another instance the uterus was amputated through its body. Trenholme had once removed the uterus on account of the rupture of a cyst with symptoms of sep ticæmia. The woman died.

The writer spoke of one class of cases in which the operation was especially contraindicated: those in which the growth of the tumor was downward, occupying the pelvic excavation.

Reamey, O.—Alluded to a series of five cases belonging to

Dr. Thomas Wood, of Ohio, in which there were three recoveries.

Smith, Iowa.—Had once performed the operation under an error in diagnosis. A trocar was driven into the intumescence which drained away some two ounces of amber colored liquid; it was thought to be from an ovarian cyst, and gastrotomy was performed. The tumor was found to be uterine, and the mass removed; it weighed fifteen pounds. Upon the upper surface of the growth a collapsed cyst was found, into which the trocar entered. The woman died on the sixth day.

Sims, N. Y.—Regarded the paper a valuable contribution to the literature of the subject, and its appearance now as most timely; especially as some are carried away with the idea that the operation should be performed much more often. He believed the operation was sometimes justifiable; but it was not always so in Péan's cases. He had performed the operation three times; in two instances the patients died of shock, and the third instance died from septicæmia. In this case there was sloughing of the broad ligament, and some eighteen ounces of pus were found in the abdominal cavity.

Jennings, Ark.—Inquired of Dr. Kimball what per centage of cases died of septicæmia.

Kimball, Mass.—Peritonitis and septicæmia usually co-exist. One case died from hemorrhage; the rest died from peritonitis and septicæmia. In one case there was a most singular manifestation of septicæmia: the patient had survived three weeks, when a lump appeared in one parotid region which grew so rapidly that the poor woman was asphyxiated.

Marcy, Mass.—How long after the recovery from the operation were the patients alive?

Kimball, Mass.—So far as he knew they were all now alive, except in one instance. In one case he had removed an ovarian tumor eleven years before ablating the uterus. In another subject he removed the ovaries with the uterus.

Atter, Pa.—Was physically unable to to take part in the discussion of this interesting subject. He wished to say that, in his opinion, the operation should never be performed, save when death was inevitable, and always as a *dernier resort.*

Byford, Ills.—Agreed with all who had spoken. He believed the operation is never justifiable except as a last expedient, and before deciding that the operation should be performed in a given case, we should separate the cases in which death is really imminent from those in which it is only apparently so. For instance, it is well known that these uterine tumors are often the seat of inflammation, when it would seem that the patients life was endangered; but inflammation is a process by which nature lessens the tumor and sometimes causes it to disappear, and is often recovered from. The danger of death from exhaustion, and especially from pressure upon the neighboring vital viscera are among the indications which might justify the removal of the uterus.

Grant, Ca.—Had listened with great pleasure to the paper and the discussion. So far as he knew, the opportunities for observation upon this subject had been extremely rare in Canada. He had known of but two cases: one followed by death, and one by recovery.

Mary Thomas, Ind.—Knew of one instance of recovery from removal of uterus, but thought the operation should be resorted to with great hesitation.

White, N. Y.—Rose to thank Dr. Kimball for his very able paper; very few men, however, who had had such success, were as modest. In other words, the success attained by Dr. Kimball hardly warranted the conclusion that the operation is almost never justifiable, which had been expressed by so many present. Why wait till death is inevitable, and the patient moribund? Why not give the patient the advantage of her only hope, at a time when the operation promises most? He believed in going forward. The early ovariotomists were greatly opposed, and the whole world was slow in accepting, what had been demonstrated in America, that ovariotomy was a justifiable operation. The operation under consideration has a great future. He declared himself conservative but not timid. Three cases had occurred in his practice. Some weeks since, he was sent for to do the operation, but the order was countermanded because the woman was supposed to be dying. The woman did not die, and he was again sent for

and removed an immense fibro-cystic tumor; the woman died from shock. A year earlier the woman might have been saved by the operation. In another case, the woman died from exhaustion. The third case was operated upon under an error of diagnosis; it proved to be uterine instead of ovarian, and the uterus was removed through the neck. This woman recovered.

Bozeman, N. Y.—Read a paper entitled Kolpokleisis, as a means of treating vesico-vaginal fistula; is the procedure ever necessary? The conclusions of the writer, were, that by a systematic and proper preparatory treatment, vesico-vaginal fistula can always be cured by operation, without ever necessitating the destruction of the vagina. The paper consisted chiefly of a correspondence between Prof. Simon, of Heidelberg, and the reader, upon a series of cases upon which both had operated in concourse, in Heidelberg. The reader exhibited his graduated set of vaginal dilators, the systematic use of which distinguishes the author's operations.

Second Day, June 6.

Bozeman, N. Y., wished to read some statistics in addition to his paper of yesterday. Of twenty-five cases of vesico-vaginal fistula, collected from European journals, eighteen were condemned to kolpokleisis; two died from the operation. The paper was not discussed.

Marcy, Mass., presented a paper on the congenital absence of the uterus. Several interesting instances were cited. One, aged 29, had never menstruated; had no pubic or axillary hair; externally was well formed; had no sexual instinct. There was a vagina, but every mode of examination failed to elicit the existence of the uterus. She suffered regularly from symptoms of suppressed menstrual flow. The woman had two sisters who had similar evidences of this imperfect development. In another case spoken of in the paper, the woman, aged 32, had no periodic manifestations. In a third instance, there was a slight uterine mass which was threaded, as it were, by the passing sound.

Webber, Ind.—Had recently seen a woman, married for two years, who had never menstruated, and in whom he could find no signs of a uterus.

Staples, Minn.—Had recently dissected a fully grown fœtus, whose external parts appeared those of a female. There was no vagina and no uterus; ovaries present. No anus; the intestine ended in the bladder.

Warner, Mass.—Had met with an instance in which neither vagina or uterus existed. The woman was otherwise perfectly formed.

Sims, N. Y.—Had met with five cases; but, unlike Dr. Marcy's case, the vagina in every instance was wanting. In all instances the subjects seemed perfectly formed, and one, particularly, was a beautiful woman. But, in all instances, the uterus and vagina were absent. In one instance the subject was madly in love, but marriage was of course interdicted. In regard to the sexual instinct, the speaker said he had now been in practice forty-two years, and had never been guilty of asking a woman if she experienced the sexual desire.

Dean, N. Y.—Spoke of the liability of error in deciding that there was no uterus. A case was detailed; that of a girl, aged 15, who had not menstruated. Vagina imperfectly formed, but not positively wanting. The entire staff of the Rochester hospital agreed that the uterus was absent. Subsequently, an ill defined tumor was felt above the symphysis pubis. An incision was made upward in the direction of the vagina which revealed an os and uterus, from which drained away a quantity of retained menstrual matter. The girl has since menstruated.

Bozeman, N. Y.—Mentioned a case, otherwise perfectly formed, but in which the uterus and sexual instinct were wanting.

Seymour, Troy, N. Y.—Mentioned a case in which the uterus was not altogether wanting, but in which the growth of the organ had been early arrested, perhaps by a severe attack of scarlatina which she suffered in her childhood. She had never menstruated, and the sexual instinct, and female modesty and shame, were entirely wanting. It occurred to him that the uterus might be made to grow; and, with this end in view, stimulating injections were used; soon the uterus began to grow, and the woman afterward began to menstruate.

Subsequently her womanly instincts began to predominate, and rather to his detriment, for she blackened his reputation in a large section of his city by detailing everything that had been said and done to her during her treatment. The speaker protested against its being declared indelicate to ask a woman concerning her sexual feelings, or concerning anything that can throw light upon the case under consideration. "In the name of God is it more impertinent to inquire about the sexual feelings than to know about the perfectly formed external parts?"

Parvin, Ind.—Had met with one case in which there was no evidence of a uterus. He spoke particularly of a class of cases in which the uterus is not absent but undeveloped; the function of menstruation is sometimes absent and sometimes vicarious. The uterine mass is often no larger than the end of the little finger. Passing the sound into its minute opening is quite like threading the mass, as Dr. Marcy very aptly said. Such cases are important, because amenable to treatment, and the development of the uterus can sometimes be artificially completed. The speaker confirmed Dr. Sims in his views of the indelicacy of asking a woman concerning her sexual feelings. He knew not how to ask such questions. He was ignorant of the euphony with which to clothe the thought. "I doubt if ancient Troy would have fallen had it contained one with the heroism of this modern Trojan."

Battey, Ga.—Had seen four cases in which the uterus was apparently absent. In one the vagina was about an inch and a half long; no uterus was felt; the woman was barren, and had never menstruated.

White, N. Y.—Had seen ten or more such cases. One woman had previously consulted a practitioner because coitus was imperfectly executed. She was assured that the deformity could be remedied, and submitted to an operation. A hole was made, which satisfied her husband, but she was not able afterwards to hold her water, which was constantly running away. An examination showed absence of vagina and uterus, and a large hole in her bladder. This vesical fistula the speaker closed by operation. In this case, when the finger was passed

into the bladder, the ovaries could be easily felt upon either side. In another case the creature had been brought to him to be fitted with a truss. He found what appeared to be the labia of the vulva, and one labium contained a testicle, upon which the truss was to be fitted. In still another instance, he found the labia containing testicles, the subject being brought to him to decide whether the creature should be christened George or Georgiana.

Byford, Ill.—The experience of the gentlemen who had spoken surprised him; he was not before aware that there were so many women in the world without a uterus. Two cases occurring under his observation were spoken of; in each there was an undeveloped uterus; in one galvanism was tried without result; the subject was more than thirty years old. In another case the uterus was at first about an inch and a half in length, but it subsequently suppurated and dwindled in size. In all, he had seen some eight doubtful cases.

Crawford, Ill.—In this connection mentioned the case of a child, now eighteen months old, who had menstruated every twenty-eight days for seven successive periods. The period is four days in duration. The amount of blood lost is nearly that lost by the adult. In all other respects she is like other infants.

Reamy, O.—Mentioned a case in which menstruation had never occurred till the age of 21. By operation, a vagina was made and the presence of the uterus made out. He protested against the declaration going out from this body that it was indelicate or impertinent to ask a woman concerning her sexual tastes. It is our duty to inquire concerning everything which can throw light upon the case under consideration.

Cutler, Mass.—Was requested to exhibit the electrolytic apparatus devised by him for the electrolysis of uterine tumors. The success of the operation has been greater since he devised the new grooved electrode. These pointed electrodes are driven into the most accessible part of the mass; sometimes directly through the abdominal walls, at other times through the vagina or rectum. The electrodes must always be separated from each other by at least a half inch of tissue; more than this is

better. The operation should always be performed under ether. The duration of the sitting varies from five to fifteen minutes.

Hildreth, W. Va.—Exhibited a new vaginal speculum which he had improvised. Its shape is like the common glass speculum, but its walls are made of wires, which run lengthwise, and are separated from each other by half inch spaces. The advantage possessed by it is that the vaginal wall can be seen at any point.

THIRD DAY, JUNE 7.

Smith, Ia.—Read a paper on how to decide the best position in every labor. The reader had been early convinced, by a case of extreme lateral obliquity of the womb, that the position of the woman had much to do with the progress of labor. In every case, we should carefully find out the relations of the axis of the gravid uterus to the entrance of the parturient canal, and place the woman in that position which is most favorable to the entrance of the fœtus into the pelvis.

Parker, Mass.—Reported a case of a large growth connected with the clitoris, which was removed. The subject was a prostitute, aged thirty-five years. She had been insane more than three years. It was known that, at least three years ago, the tumor of the clitoris was as large as an orange. It was now much larger. Under ether the growth was removed without difficulty, with the écraseur. The mass weighed four and a half pounds. Its gross appearances were those of a syphilitic condyloma.

Immediately upon recovering from the effects of ether, she was apparently perfectly sane, and remained so. She exclaimed to the operator: "God bless you, why have you not done this before?"

She also said that she had another trouble; viz., her stomach. A fullness over the region had been often noticed. During her stay in the alms-house, she had been observed to vomit frequently. She had a morbid predilection for cabbage, which she would eat in great quantity and immediately reject.

The patient died three days after the removal of the tumor,

though from no effects of the operation. An autopsy revealed the stomach nearly full of hay, rolled in a large circular mass, and one large ball had been recently driven through the pyloric orifice of the stomach, which had probably caused death.

Photographs were shown of the tumor in situ, and of the stomach on section containing the hay.

White, N. Y.—Completed reading his annual report on obstetrics and gynecology, which had been presented at the morning session of the Association.

The reader dwelt particularly upon the treatment of inversion of the uterus, by gradual reposition. By means of the appliance used by him, the reader said that all inverted uteri could be replaced; no matter the length of duration of the inversion—thirty years or six months. The paper concluded with a plea for bed-side instruction in obstetrics; which system the reader instituted in this country more than thirty years ago.

Sims, N. Y.—Contrasted the infrequent use of the forceps in labor years ago, with the humane use of the instrument at this time. Some years ago, Dr. Quackenbush, then quite a young man, startled the N. Y. State Society by saying that he had used the forceps in fifteen hundred labors. This was perhaps the beginning of the frequent use of the instrument, which now prevails in this country, but to no such degree abroad. The speaker alluded to a paper by Dr. Newman, of Denver, in which the use of short forceps was advocated in the last moments of labor. A very short forceps was exhibited, which the speaker thought (erroneously) was devised by Dr. Newman to be used in the last moments of labor.

Quimby, N. J.—Spoke against such frequent use of the forceps; it is meddlesome and dangerous midwifery. The case should be left to nature for at least six or eight hours. The forceps should only be used when nature shows signs of failing.

Fairbanks, Mich.—No ignorant practitioner should be entrusted with the use of the instrument. Thirty years ago a practioner would have been condemned and called a butcher if he had used the forceps.

Jenks, Mich.—Said it was no argument against the use of

an instrument, that, in the hands of unqualified men, it could do harm. He should be sorry if the teaching now prevailed of waiting as was taught formerly. When the parts are ready for delivery, there can be no advantage in waiting. Under these circumstances, delay is an indication for the use of the forceps.

Reamy, O.—Said the time had gone by of measuring the powers of nature by the watch. The intelligent practitioner should be ready to interfere at any moment and at any stage of the labor. Damage to the woman and child is caused much more often by too great delay, than by the too early use of the forceps. The speaker said, of the particular forceps now before the section, that it possessed many faults, which he pointed out, and concluded by saying, that it was a beautiful instrument, but at the same time it was a useless thing—a mere toy.

Woodward, Vt.—Also thought the little instrument in question a useless instrument, and spoke of the advantages of the Hodge forceps. He was formerly taught to use the forceps to save the child; but he also used it now to save the woman's bladder, which he did by its early use.

Battey, Ga.—Said that it had been claimed as an advantage, that this forceps could be applied without the knowledge of the woman. He had more than once been guilty of asking the question which had been so severely condemned yesterday, but had never used the forceps clandestinely.

Byford, Ill.—Said that in his practice, when the pains fail and the head does not advance, he interfered without reference to time. He wished to defend the little instrument which had been so severely abused. The criticisms made by Dr. Reamy, might apply to Dr. Newman's forceps, but the instrument now exhibited is not Newman's forceps but Sawyer's forceps, which was a modification of Newman's and a hundred per cent. better than the original. He had seen the instrument in actual use, and its excellence was apparent. He had no hesitation in saying that, for the class of cases which the author had in mind, it was the best short forceps in the world.

Garnish, Ind.—Protested against such teaching going out

from this body, advising such frequent use of the forceps. During a practice of twenty-five years, in but ten or twelve cases did he use the forceps. The instrument should be reserved for those cases in which nature has failed.

Sims, N. Y.—Was specially asked to give his views upon the treatment of stenosis uteri. The speaker detailed the history of the surgical treatment of the affection; Simpson was its author, who claimed that no damage resulted from the operation; but in two weeks from its introduction in New York, two cases of dangerous hemorrhage had resulted in his practice. Subsequently, when the speaker visited Edinburgh, he found that accidents did occur, even in the hands of the great master himself.

As first performed, the operation consisted in cutting through the vaginal cervix upon both sides, with the metrotome. Soon after he began to do the operation, a case presented itself to his notice of extreme retro-flexion, that admitted the sound with the greatest difficulty. It occurred to the speaker to amputate the posterior lip of the cervix, which was greatly elongated and with the knife to cut along the posterior aspect of the cervical canal. This was the origin of the operation which is known as Emmet's operation, but which is really Sims' operation, and which he wished known as such. In the operation which he now performs, the knife is used, and the scissors is discarded. If the lips of the cervix are symmetrically developed, the lateral incisions are made with the knife; but if the posterior lip is elongated, the posterior incision is made. The depth of the incision varies with the size of the neck; the substance is cut nearly two-thirds through.

The speaker is particular to guard against all possibility of hemorrhage, by tamponing the cervix with cotton soaked with Liq. Ferri Subsulphas 1 part, water 2 parts. The success of the operation depends upon the subsequent dilatation of the cervix. All operations will be futile, unless a systematic dilatation of the cervix is carried out.

Parvin, Ind.—Reminded the section that other matters were treated of in Prof. White's report, that merited discus-

sion. In regard to the induction of premature labor in cases of placenta previa, he wished to say that, in his opinion, the procedure should never be resorted to, save when the child is viable and the woman is in great danger from imminent hemorrhage.

Seeley, Ill.—Exhibited a new dilator. It consisted of a silk bag outside of a rubber sack. Any shape can be made which is desired. A tube is carried into the sack to its fundus, for the purpose of holding a metallic sound, by means of which, the dilator is held within the cervical cavity to be dilated. A second tube connects the dilator with the syringe, by means of which the instrument is distended. A disadvantage possessed by the Barnes' dilator is, that it slips out of the canal; in this instrument the sound secures its retention.

Sims, N. Y.—Exhibited Fowler's pessary, which the speaker called almost an universal pessary. In principle, it is like the Hodge, but is much more bulky, being a deep, cup-like shell of vulcanite.

Fitch, Ill.—Pointed out several defects possessed by the instrument; chief of which was its great bulk. Its large surface bearing upon the vagina, would do injury to the part. The opening in the anterior part of the instrument, to facilitate its removal, was a fault; because, through it there was danger of the soft parts prolapsing and becoming strangulated.

SECTION III. SURGERY AND ANATOMY.

Reported by JNO. E. OWENS, M. D.

TUESDAY JUNE 5—FIRST DAY.

This section was called to order at 3 o'clock p. m., and organized by the election of Dr. F. H. Hamilton, of New York, chairman, and Dr. J. E. Owens, of Chicago, Secretary.

The first paper presented for the consideration of the section, was entitled,

THE VALUE OF EXTENSION IN THE TREATMENT OF FRACTURES OF THE FEMUR.

It was read by the author, Dr. J. T. Hodgen, of St. Louis, Mo.

The paper was looked upon by the section as a criticism adverse to the treatment of the above-mentioned fracture by fixed dressings, namely, by plaster of Paris, etc. Dr. Hodgen, in his argument, simply expressed the thought, that no fracture of the thigh can be properly treated without more extension than can be secured by fixed dressings. His paper thus concludes:

1. Continued extension of the femur is essential to the best results.

2. This is not to be secured by lateral supports of *any* kind.

3. This can be secured by suspending the limb.

4. Suspension furnishes the best means of allowing motion to all parts of the body.

"For this reason," says Dr. Hodgen, "that some prominent members of the profession have given utterance to language which has been misunderstood—which has been supposed to express the thought that every fracture of the thigh could be so treated by plaster of Paris dressing as to prevent shortening, I am especially anxious that the profession shall be set right in this matter, lest we be brought to bear testimony against ourselves in courts of justice." He then brought to the notice of the section the changes that occur in a fractured limb, and in the perineal band, during the use of the long splint of Liston, namely, the almost daily elongation of the band, the progressive atrophy, from pressure of the tissues about the perineum, the prominence of the rounded thigh, the fullness of the outer part of the leg; and claimed that under these circumstances,—and that, too, in spite of the proper management of the above-mentioned splint,—the limb shortens by muscular contractility.

The author's objections to the plaster of Paris dressing, as used by Sayre and others, for fractured femur, are the following:—"Atrophy will occur rapidly and unequally; the muscular tissue will constantly tend to produce the shortening which the atrophy at the points of pressure of the extending and counter-extending forces will permit." "After a week you can put the finger between the foot and the plaster-case, while

one may place a hand between the plaster and the hip." The plaster-case in front upon percussion will yield a resonant sound. Atrophy of the limb has supervened, and the plaster being no longer a fixed dressing, readjustment becomes necessary. In the meantime, the limb has shortened within the plaster-case. Dr. Hodgen likewise took issue with those surgeons who maintained that this shrinkage will not be allowed to occur;—who prevent it by permitting the patient to get up, to move about the room, to go out to attend to business. After quoting from Dr. Sayre's report to the Surgical Section of the Am. Medical Association, 1874, to the effect that it is "better to keep the patient up and walking about occasionally, as the limb will then fill with blood and retain its accuracy of fit to the plaster-casing" etc., etc., Dr. Hodgen acknowledges that it is quite easy to "understand that erect posture would allow an increased quantity of blood to flow into a pendant limb; that the returning flow would be retarded, and that the plaster-case would be fitted by the œdematous limb;" but he deems it absurd to suppose that the tissues at the points where extension and counter-extension are made, are kept so tightly filled with blood and serum as to make adequate extension on the limb. It is admitted that the weight of the limb as an extending force would be sufficient, were it possible to keep the patient erect during the time required for the accomplishment of firm union. Oblique suspension, he continues, by means of Nathan R. Smith's anterior splint, or modification of it, is the only possible way in which unvarying extension can be applied. The discussion upon this paper and upon other methods of treatment, than the one advocated by Dr. Hodgen, continued till the hour for adjournment. The Section adopted the following resolution, offered by Dr. W. F. Peck, of Iowa:—

"*Resolved*, That it is the opinion of this Section, that shortening, in cases of fracture of long bones is the rule in practice, regardless of any of the plans of treatment now in use."

(The paper was referred to the publication committee.)

Wednesday, June 6—Second Day.

Organic Stricture of the Urethra from Masturbation,

WITH A BRIEF ACCOUNT OF ITS PATHOLOGICAL SIGNIFICANCE. By SAMUEL W. GROSS, A. M., M. D. Dr. Gross just directed attention to a report in the Medical and Surgical Reports, May 5, 1877, of fifteen cases of urethral stricture from masturbation, complicated by morbid sensibility of the canal, and attended with more or less marked disturbance of the generative functions. Since that time, three additional examples have come under his notice in private practice. In these, there existed sexual debility, as indicated by premature and painful ejaculation, or by difficulty in commanding erection. He met with still another case in Philadelphia, affording a total of 19 examples out of 138, from all causes. He was convinced by this unusually large proportion, 1 to $7\frac{1}{4}$, of strictures from onanism, that the habit was a far more frequent source of urethral coarctations, than has been heretofore supposed. In only two of his cases was the stricture of so small a calibre as to give rise to difficulty of urinating. In all of the remaining instances, it was detected in persons who consulted him on account of sexual trouble, irritability of the bladder, gleety prostatic or involuntary discharges, chronic enlargement of the epididymis or irritable testis. From carefully conducted investigations, Dr. Gross maintains that masturbation may produce as intense an urethritis as gonorrhœa, at all events that protracted chiromania is sure to give rise to subacute or chronic inflammation of the urethra, which will eventuate in the formation of stricture just as frequently as does gonorrhœal inflammation; that organic stricture may be found as often in the subjects of chronic onanism as in the subjects of chronic clap.

It is held by most writers, including Sir Henry Thompson, that stricture of the urethra is never traced to masturbation.

In the report above referred to, the author endeavors to explain that this oversight was due to the fact that, out of France, surgeons rely more upon the ordinary elastic bougie, metallic sound, or catheter, for examining the urethra, than upon the soft exploratory bougie of Leroy, with which a stricture cannot elude detection. The urethral stricture, resulting from

masturbation, presents certain peculiarities when compared with coarctations from other causes, namely, it is usually solitary, deeply-seated, and not irritable, although it is almost invariably associated with prostatic hyperæsthesia. Of the 19 cases from onanism, on the other hand, all were solitary except three, and in one there was another stricture near the external orifice. The most common situation of the coarctation was 5 7-10 in. from the meatus, or in the region of the bulbo-membranous junction, and as regards the degree of coarctation, it may be accepted, as a rule, that the stricture will be found to be above the medium size, or above number 15 of the French catheter scale, since, in only two instances, representing three strictures, was the calibre below that number, being repeatedly 13, 14 and 14. The average was 17.

The forms of the disease generally met with, are the linear and annular. The indurated annular is rare. In several instances in which the treatment by dilatation extended over a period of several months, the bulbous explorer defined the band, as clearly as in the first instance. The strictures of onanists are not irritible, as they evince no proneness to disturbances of the nervous system, and rarely bleed on instrumental contact; except in one case, there was morbid sensibility of the prostatic portion of the urethra.

Dr. Gross has tested the accuracy of his views upon this matter, by his investigations among the insane of the Philadelphia Hospital, and the Pennsylvania Hospital for the Insane. In some of the insane, the question of gonorrhea could not he entertained because the subjects were admitted at too early an age, and had never left the hospital. In the fifteen examples in the paper previously referred to, those who underwent treatment and faithfully observed instructions, seven were cured by general measures and internal urethrotomy; one was not benefited, the case being that of a hypochondriac, while one was improved merely by the use of steel bougies of gradually increasing sizes. In one case a most distressing neuralgia of the testis was at the same time relieved, while in several, irritability of the bladder, and gleety and prostatic discharges ceased. In one instance only was there true spermatorrhea.

Owing to the frequency with which spermatorrhea follows onanism, the author is led to believe that stricture will be found to be an essential feature in its pathology. "The mere fact of the discovery of urethral lesions in every masturbator confined in an asylum for the insane, should arouse the attention of the superintendents of such institutions to those lesions, as important elements to be considered in the treatment of patients whose mental condition is ascribed to onanism. The most fruitful sources of the general paralysis of the insane are sexual excesses and masturbation. If the removal of the exciting cause in the curious case of reflex paraplegia, from congenital phimosis and adherent prepuce, first observed by Dr. Sayre, results in recovery, may it not be possible in general paresis to prevent functional states from passing into organic disease? Dr. Gross is convinced by an examination of four cases of general paresis, that there is a source of reflex irritability in the urethra.

I regret that I am unable to give a full abstract of Dr. W. T. Briggs' paper on

MEDIO-BILATERAL LITHOTOMY.

It was taken by its author to be re-written, and hence I can only give a portion of the discussion upon the subject. Dr. Briggs, in his paper, in the first place desired to bring to the notice of surgeons this operation, the advantages of which, he feared, were under-valued, and then took the ground that stone in the bladder was most conveniently and safely dealt with by the employment of this operation.

Dr. Gouley, of New York, expressed admiration for Dr. Briggs' enthusiasm for Civiale's operation of medio-bilateral lithotomy, but was opposed to making any operation for stone an exclusive one. The operation should be selected for the case, and not the case for the operation. Lithotomy in any of its methods should not be the exclusive operation, nor should lithotrity. They are perfectly distinct from each other. Where one is indicated, the other is contra indicated. The skill of the surgeon lies in determining which of the two operations should be done, for it is wrong to do lithotomy where

lithotrity can be done. I do not believe, as many now say, that the operation of lithotrity is practicable only in very small calculi, nor would I say that it was positively prohibited in large calculi. The circumstances to be taken into consideration are the condition of the urethra, its degree of permeability, its degree of sensitiveness, the condition of the bladder and mucous membrane, the condition of the kidney, the general condition of the patient. In the case of a man with a very irritable bladder, seeking relief every moment of his life, the bladder, perhaps, contracted over a small deposit, the operation of lithotrity would only make him worse.

A well performed cystotomy, a good free incision of the neck of the bladder in such a case, would not only give relief to the sufferer, and afford him drainage for his bladder, but would eventually cure his cystitis. Take the other extreme. A man of 68 or 70, who is walking about, is rather lame and heavy, can take very little exercise without considerable discomfort ; he may not be disturbed for urination more than once in a couple of hours, but he feels that there is something wrong. There are disagreeable sensations about the rectum and bladder. He has been examined repeatedly, perhaps, and nothing has been found. Occasionally there is a little hemorrhage. He thus goes on for several years till some one discovers a stone of considerable size in his bladder. The surgeon finds to his surprise that he is able to seize the stone and move it about in the bladder; he thinks of the enlarged prostate, and believes that cutting might prove dangerous, because of the great vascularity of the parts, the large size of the stone, and besides there is some median enlargement. The question of lithotrity comes up, and it is finally decided upon. The surgeon grasps the stone; it is moderately friable; he breaks it up and is unable to remove the fragments, perhaps, by the natural way. The bladder does not empty itself, so he makes use of the evacuating catheter. He has six or seven sittings. There is no chill, no fever, no unpleasant symptoms, and his patient gets well. There is no *best* method. The best method is that which promises the greatest success to the individual case. We must study—study each case as if

we had never seen anything like it before. It is injudicious to operate at once. It is often injudicious to examine at once. Get acquainted with the patient, coax him and coax his bladder, and see how it and he behave, and then all will go perfectly smooth. My second case of lithotrity, (said the speaker) a tall, lank man, who had suffered from stone for seven or eight years, could not be touched; he either had chills, or sickness in one way or another. It was intended at first to cut the patient, but the urethra became more tolerant. A whole month was consumed in preparatory treatment. He became so docile under the proper treatment, that lithotrity was determined upon, and at the end of twenty-four sittings the patient had been relieved of an ounce and a quarter detritus. There were two stones. Lithotrity will only be employed when surgeons make up their minds to exercise more patience, to learn better how to deal with a patient. For the sake of comparison we want the publication of unsuccessful cases. The speaker begged every gentleman who has cases of stone, and especially if they be unsuccessful, to publish them. We want all the cases, in order that we may place a just estimate on the operation or the various methods of operating. Dr. Gouley's own mortality is one in eighteen cases in lithotrity. When lithotomy is indicated, that is when there is inordinate cystitis, inordinate vascular irritability, no operation in which the neck of the bladder is not divided will prove quite satisfactory. It may relieve, but it will not prove quite satisfactory.

Treatment of Fractured Ribs by Extension and Expansion of the Thorax and Retention by Plaster of Paris Bandage. By Dr. Lewis H. Sayre, N. Y.—In January last Dr. Sayre was requested by Dr. Sims, of New York, to see an old lady, 78 years of age, very greatly emaciated, who had been an invalid for a great many years, having, in early life, had inflammation of the left lung, resulting from abscess, leaving her collapsed in the left side, the ribs on the left side completely overlapping, so as to entirely include the intercostal spaces. This lady, about eight days previously, had fallen in the hall on her left side against the

corner of a marble slab, breaking the second, third and fourth ribs, about the middle. She had great difficulty in breathing, and almost incessant cough, and she was almost unable to sit down. Drs. Sims and Austin Flint attended her. The only way in which she could be kept in a comfortable position was by sitting upon the edge of a sofa between two assistants, and her arms reaching over their shoulders, her body being bent forward and her head resting upon a pillow upon a table. She had been in this position six days before Dr. Sayre was called to see her. Her medical attendants had tried all the ordinary methods for the treatment of fractured ribs, without giving relief. Watching the attitude of the old lady with her arms stretched tightly over the shoulders of her assistants, and learning that whenever a change of assistant was necessary to relieve those already on duty from fatigue, the pain was almost unendurable, and the only time she could get easy again was when she got in the position I have described, I discovered that it was simply by the extension of her arms, and the consequent distention of the pectoral muscles and other thoracic muscles that the ribs were held apart, as far as possible, and she was comparatively easy. After making traction on her hands and pulling her up as far as possible, spinal curvation with anchyloses rendering it impossible to straighten her, she was instructed to take a deep inspiration, and then she said that she felt more easy than she had at any time since the accident. Having made her undershirt fit as smoothly as possible, the plaster of Paris bandages were applied which Dr. Sayre uses for Pott's disease. The arms were held in the manner described until the plaster became hard, after which the old lady got into a chair in a comfortable position, and began a pleasant conversatio. During the seven or eight days previous to the application of the plaster jacket, it was almost impossible to get breath enough to articulate a few sentences, and her cough was almost incessant.

From the moment her arms were extended there was not a single cough. The patient died of exhaustion in nine or ten days. The comfort that this lady experienced after the application of the jacket, compared with the agony that existed

before its use, was a matter for consideration. It occurred to Dr. Sayre that it was the position in which she had instinctively placed herself that had given her comfort, and that the fixation of the trunk by the immovable apparatus was the plan of treatment. Dr. Sayre thought at the time that the method was original with him, but Dr. St. John, of New York, informed him that he had already applied plaster of Paris in the same way, when he was house-surgeon at Bellevue Hospital.

Dr. Sayre has applied the jacket in two other cases of fractured ribs by setting the patient in a chair or stool without a back to it, and having two assistants, one on either side, hold a broomstick over their heads, so that the patient can extend the arms over the broomstick, and at the same time take a deep inspiration. The ribs become thus accurately adjusted. The instant the parts are in accurate apposition, and are held by the muscles, the patient will let you know it, either by his face or his words; then apply the bandage and instruct the patient to maintain the position till the plaster soldifies.

Dr. I. N. Quimby, of New Jersey, then read a paper entitled

OPERATIONS ON PARALLEL BONES WITH LOSS OF SUBSTANCE,

of which the following is a brief abstract: Having been called to attend a patient suffering from a compound comminuted fracture of the tibia and fibula, a little below the middle, he ascertained that there was a complete loss of $1\frac{3}{4}$ inches of the tibial shaft and corresponding destruction of the soft parts.

Dr. Quimby then proceeded to perform the following operation, the patient having been anæsthetized. An assistant seized the limb above and below the seat of injury, and bent the member at the wound, forming nearly a right angle, exposing to view as much as possible the ends of the fragments. Finding the remaining upper and lower fragments of the tibia sharp, jagged and irregular, the wound was enlarged, the soft parts dissected away from the broken ends of the tibia just sufficient to apply a small metacarpal saw, and these extremities removed. There was left a tibial deficiency one inch and three-fourths in length.

The operator then carefully "worked his way" through the wound to the lower fragment of the fibula, dissecting the soft parts away from the end of the bone, and seized it when exposed with a pair of bone forceps, which were firmly held by an assistant while Dr. Quimby sawed off one and three-fourths of an inch of the fibula. The parts were then placed in accurate apposition, care being taken to avoid the interposition of the soft parts between the osseous extremities. The limb was then placed in an ordinary fracture-box, with lateral hinged doors and bran stuffing. To secure immobility, a large piece of adhesive plaster was made to cover the entire sole of the foot, and was then reversed over, and fastened to, the foot-board, being afterward further secured with circular strips and a roller bandage. A compress was also fastened over the lower anterior part of the leg as near the wound as possible, which was held in place by a strip of plaster passing across the top of the box and secured through perforations in the latter. Thick, broad compresses were similarly applied above and below the knee, and also on each side of the limb.

Immobility was thus maintained for seven weeks, the wound being meantime covered with a lotion of carbolic acid. A profuse purulent discharge ensued, which gradually diminished, and at the end of eight or nine weeks union had occurred. The limb was then removed from the box, a plaster of Paris bandage applied with proper fenestrum, and retained for three weeks. In three months the patient was walking with a cane. (A photograph was exhibited, showing the patient supporting his weight upon the two limbs, the wound being cicatrized.) The patient has a slight limp in his gait, and the shortening corresponds to the length of the segment removed, $1\frac{3}{4}$ of an inch. The patient had been seen by Drs. Post, Sayre, Crosby and others.

Dr. Quimby concluded:

1. That other limbs might be saved by such procedure.
2. That the attempt should be made in the case of parallel limbs similarly injured.
3. That the operation was original with the author.
4. That even *without* fracture of the fibula, a similar procedure would be advisable.

Dr. Bayard, of Quincy, stated that he had enunciated the principle in May, 1874, and in the New York Medical Journal of last year, having secured immobility by drilling holes through the extremities of bones and wiring them together.

Dr. Hodgen, of St. Louis, after inquiring whether every particle of bone and periosteum had been removed by the injury from the $1\frac{3}{4}$ inch of the tibia found wanting, and being then answered in the affirmative, remarked that there was a danger in reporting such cases lest they might lead to improper practice. The value of periosteum and fragments in such cases was great. In case of any doubt the patient should have the benefit of it.

The Chair remarked that, if there was any doubt respecting the filling up of the space left between the fragments of the tibia, it would, in his opinion, be wiser to fracture if the fibula and permit the broken ends to penetrate the flesh and remain overreaching. This would not diminish the chance of final consolidation, as it not unfrequently occurs from accident.

Dr. Truesdell, of Illinois, concurred in the views expressed by Dr. Hodgen. He reported a case in which he had finally to remove a piece of the tibia, one inch in length and four-fifths of the thickness of the bone. The entire space was filled by granulation, and the cure was complete without shortening or lameness. In some cases he had been able to scrape out the entire shaft of the bone with his finger, for two inches. Periosteum was not necessary to complete repair. The tissue forming the cancellated structure of the bones, is simply an extension of the periosteum, and those cancellated cells produce plastic material convertible into bone.

Dr. Sink, of Indianapolis, also believed in the restoration of bone under such circumstances, believing the source of it to be not the periosteum merely, but the medullary tissue, from which granulations arise even when exposed to the air, if that air be not irritating. Judging from his own experience, and alluding to the observations of Virchow, he believed that the bone in this instance would have formed to fill up the vacant space between the tibial extremities. In one instance he had removed five inches of the tibia, leaving but a little specimen

of bone, and reformation occurred, the man recovering with a sound limb.

Dr. Humphrey, of Missouri, concurred in the views already expressed, citing a case treated by himself where three inches and one half of the entire shaft of the tibia were removed, and the periosteum completely destroyed, the fibula being intact. The limb was kept extended upon Dr. Hodgen's splint, after the removal of the fragment, and the result was perfect.

Dr. Quimby referred to a case treated by Prof. Crosby, of Bellevue, where the entire shaft of the tibia was gone for 1½ inches. The patient objected to removal, and only partial restoration occurred; the patient to-day is walking around with a steel splint. In his case, if spicula had been found, he would have attempted restoration. He had himself removed two, three and four inches of bone where the periosteum was partially left, and union had resulted. He believed that cancellated tissue also could reproduce bone.

Dr. Hughes, of Iowa, believed that many present, if called to a similar case, would have performed the operation described. In three instances, the speaker had removed portions of the bones of the fore-arm, and by shortening the limb had obtained excellent results. The operation is therefore not a new one. But where either medullary tissue or periosteum is left, removal, of course, is unjustifiable.

Dr. Hodgen remarked that he now understood one and three-fourths of the tibia was gone in its entire thickness. (Dr. Quimby—"Yes.") In that case the anterior tibial nerve and artery must have been removed with the soft parts, and the danger of mortification being great, amputation should have been performed.

Dr. Clapp, of Iowa, could understand why bone might be removed in the fore-arm, but could not believe it necessary in the case of the fibula.

The Chair reiterated his former opinion, believing the danger of fracturing the fibula and thrusting the ends over each other, to be small. Dr. Quimby went through a very deep wound in his operation—through the inter-osseous space where important vessels lie. He (the Chair) could not sanction the operation.

Dr. Hingston, of Montreal, thought it difficult to reach the fibula, and could not see where the "conservative surgery" came, in the case reported. He could not endorse the practice recommended.

THURSDAY, JUNE 7.—THIRD DAY.

A PAPER ON SUSPENSION AS A MEANS OF TREATMENT IN SPINAL DISTORTIONS. By BENJAMIN LEE, M. D., of Philadelphia, was then read by Dr. Frank Woodbury, of Philadelphia, in the absence of the author.

Three classes of cases were named as those in which suspension might prove useful:

1. Those in which the cervical vertebræ were the seat of disease.

2. Those in which the requisite amount of antero-posterior pressure could not be borne save for a limited time each day (hyperæsthesia, caries, abscess, etc.)

3. Those in which lordosis occurs, or a tendency thereto, in consequence of yielding of the inter-vertebral substance, or partial absorption of the oblique processes.

The author constructed an apparatus called by him "the spinal swing," the principle of which was suggested to him while he was engaged in examining a young patient who endeavored to aid in his spinal extension while in the hands of an assistant. The apparatus consists merely of a pulley fixed above the head of the patient, over which passes a cord which is attached to a chin and occipital strap, the patient himself producing gradually extension by traction upon the cord to which wooden ovals are fastened for greater convenience of handling.

The paper was devoted to the explanation of several illustrative cases, and concluded with the statement that Dr. L. A. Sayre's adoption of this principle in the application of the "plaster jacket," had greatly contributed to the interest taken in the subject by the entire profession, due credit being given the doctor for the introduction of a valuable method of securing both fixation and extension. As to the time when such treatment should be inaugurated, the author urged that

delay should not be counselled on account of the feebleness or weakness of a patient, so that a patient affected with spinal disease should be treated as speedily as one suffering from fracture of the extremities.

Dr. Sayre, of New York, did not agree with the sentiment expressed that self-suspension was useful in spinal caries. All due credit should be given Dr. Lee for the employment of self-suspension in lateral curvature, by far the best treatment yet given to the profession. In self-suspension the hands should always be kept above the forehead, for if lower, the patient might hang himself, therefore an assistant should stand by to prevent accidents. Once suspended fairly, the patient should take two or three deep inspirations to expand the chest.

Now in caries, you require consolidation, and that demands rest, not motion.

Prof. S. D. Gross, of Philadelphia, then read a paper on the "Proximate Cause of Pain."

The following propositions were stated:

1. That the nervous fluid, as it is termed, is precisely similar to, if not identical with, the electric or galvanic fluid, modified, of course, by the play of the vital actions which everywhere exists in the organs and tissues through which the nervous fluid circulates.

2. That the fluid under consideration is generated by the brain, spinal cord and nervous ganglia, and that the nerves are simply passive cords, ropes, or, so to speak, wires for the transmission of the nervous fluid.

3. That what is called pain is due immediately and directly to the obstruction to the transmission of the nervous current, thereby causing an accumulation of nervous fluid at the seat of obstruction.

4. That pain can take place only in connection with a sound state of the brain and spinal cord, or, in other words, that where those organs are seriously affected, there can be no perception whatever of pain or suffering.

5. That pain is modified or influenced by structure, and by the nature of the exciting cause.

Some of them are self-evident propositions; others are to be established only with difficulty.

That what we call pain is due to the obstruction referred to above, is illustrated in the following considerations:

1. "Spasm," as commonly used, designates affections characterized by involuntary muscular contractions, alternating with more or less marked relaxations, often followed by a distinct interval of ease (clonic). Illustrations were given of spasm in tetanus, colic, (bilious and "lead"), stricture of œsophagus, uterine contractions, etc.

2. The second class of cases considered, embraced wounds, the division of tissues in their various relations (contusions, lacerations, etc.,)and the bites and stings of animals and insects. In the simpler cases the pain is slight from temporary obstruction of the nervous fluid, there being a speedy nervous anastomosis, or it may pass off at the seat of the wound instead of accumulating, as in compression or pinch, when the nerve tissue is more or less seriously compressed. In contusions and lacerations and bites of animals, pain is transient from paralysis and non-conduction of the nerve. Stings are painful from toxic causes or serous effusion.

3. Cases where inflammation exists, the process resulting in the production and maintenance of pain, remarkably modified by the structure effected. Whatever may be the nature of the suffering organ, there is always some pain. The more solid the tissue, as a rule, the greater the pain and constitutional disturbance, and obstruction of the nervous current.

4. The same is true of tumors. Pain in scirrhus is severe, in medullary sarcoma insignificant, so in external as contrasted with internal hæmorrhoids.

5. Finally, mere congestion or capillary engorgement may produce the interference described. (*E. g.*, foreign body in the eye, chordee.)

The author further noted the careful protection in the economy of nature, of the nerves passing from center to periphery, and alluded to the pain in lost parts (*e. g.* after amputation), first described by Baron Larrey, when "the spinal cord continues to generate the same kind of nervous fluid which it was in the habit of supplying to the limb, prior to its removal."

The paper on Vaccino-Syphilis, by Dr. B. R. Senseny, of

Pennsylvania, contained a brief reference to the admission by Jenner, that vaccination might introduce into the system a virus other than that intended, and after allusion to the Italian epidemics of syphilis originating in vaccination, concluded with (the main part of the paper) an exposition of the excellent fasciculus of Hutchinson's Illustrations of Clinical Surgery, (vaccination syphilis) which is already in the hands of the profession.

Foreign Bodies in the Ear. By C. J. Blake, M. D., Boston.—Cases in which a foreign body is lodged in the external auditory canal, call perhaps more than other accidents affecting this part of the organ of hearing, for the exercise of a patience and skill, the want of which often entails serious injury to the deeper seated and more delicate parts of the organ of hearing. Voltolini pithily says that the point of danger in the external auditory canal will do much less harm than injudicious attempts at its removal. The later text-books decry any attempts made for the removal of foreign bodies from the ear, that are not made with a full knowledge of the structure and relations of the parts of the ear in question, of the character and location of the foreign body and of the various methods which may be employed for its removal. The paper here contains a brief review of the topography of the external ear. No attempt at removal should be made without proper and sufficient illumination of the parts. The body of the membrana tympani is formed by two layers of fibrous tissue, the fibres of which are so arranged as to give it great strength and elasticity—but not sufficient strength to justify its use as a point of resistance in the attempt at instrumental removal of a foreign body which may be lodged against it.

Cases have come under the author's observation in which for want of an observance of these precautions, the membrana tympani had been ruptured and the malleus torn away. In the majority of cases, even including those in which the foreign body may be firmly impacted, the removal may be effected with little or no pain to the patient, the force used being expended upon the entire surface of the foreign body without using the walls of the canal or the membrana tym-

pani as points of resistance, or indirectly upon the inner surface of the foreign body. Pain as a rule implies injury which might be avoided by patient and delicate manipulation. Slight injury may entail serious consequences to the health of the patient. Since bodies which find their way into the ear vary, the means employed for their removal must therefore vary, and the choice will depend upon the judgment of the surgeon, and the means at his command.

The cases which present the greatest difficulties are those of hard bodies, such as stones, beads, buttons and the like; bodies liable to expand by the absorption of moisture, such as beans, and peas, and impacted masses of epidermis, which resent the action of water and offer no hold for the forceps or hook.

Out of 2,374 cases examined during the past year, in the aural clinic of the Massachusetts Charitable Eye and Ear Infirmary, there were 30 cases of foreign bodies, of this number 14 were cases in which a bean, pea, kernel of corn, or similar substance, had been pushed into the ear. In six cases, insects were removed, and in one case the living larvæ of the common blow fly. In one of the common cases, a bean had remained ten weeks without causing irritation; in another, a small bean had been pushed into the middle ear, in consequence of a previous attempt at its extraction. In the majority of the cases, the foreign body was removed by means of syringing with warm water, which possesses the advantage of permitting the application of the maximum of force with the minumum of danger, the force, moreover, being applied without the foreign body. The object to be accomplished in the use of the syringe, is to establish a body of water between the foreign body and the membrana tympani, connected by a slender column of water between the foreign body and the wall of the canal, with the column of water in the syringe, furnishing, in this manner, the elements of a hydraulic press

Among the most simple procedures, that of Dr. Lowenberg, of Paris, may sometimes prove useful. This consists in the application of a camel's hair pencil, dipped in joiners' glue, to the foreign body, which should first be carefully dried by wiping with absorbing cotton. The glue is allowed to set and the removal the naffected.

Dr. E. H. Clarke, of Boston, employed, in one case, a still more ingenious method for extraction of a smooth glass bead. A thread was passed through a small disc of lead plaster. This was carefully pressed upon the outer surface of the bead, and sunlight concentrated upon it by means of a lens. The plaster softened and adhered, and the bead was easily withdrawn. A loop of wire or horse-hair is often of use in removing a hard body, and by this means possesses the advantage of being but little likely to cause injury by irritation. The common angular forceps, and the blunt hook are more or less useful. The former should never be used beyond the point of sight, nor the latter as a lens, the fulcrum for which is some point on the wall of the canal. The paper concluded with the citation of a few cases which serve to point the moral that in the proper treatment of foreign bodies impacted in the ear, skill, and not force, is required.

A paper on Recent advances in Otology was then read by S. J. Jones, M. D., Chicago.

The advances made in the last two decades, in otology are second only to those in ophthalmology.

Prior to the time of Sir William Wilde but little of practical value was known of the ear and its diseases, and still less of reliable treatment of its affections.

The anatomical division into the external, the middle and the internal ear is important for diagnosis and treatment. The physiological division into the conducting and the perceptive apparatus is important as regards treatment and prognosis.

It seems now well established that the most essential part of hearing is performed by the vestibule; that the cochlea recognizes musical sounds, and that the semi-circular canals preside over the equilibrium of the body, and possibly serve as safety-valves for the other parts of the labyrinth.

The establishment of the fact of the power of accommodation of the ear similar to that possessed by the eye is of recognized value, and may be taken advantage of to develop impaired hearing.

One of the greatest advances is in the elimination of so

large a part of those cases once supposed to be nervous deafness, and the establishing of the fact that nervous deafness is rare, and usually supervenes suddenly, and that it is attended, in addition to complete deafness, by nausea, vomiting, unsteadiness of gait in walking, etc. The cases before supposed to be nervous deafness are most frequently found to be the results of defects in the conducting apparatus, instead of in the perceptive, and to be caused by chronic non-suppurative inflammation of those parts.

Inattention in diagnosis may lead to confounding acute inflammation of the labyrinth—especially in children—with cerebro-spinal meningitis.

In the treatment of all affections of the ear, except cases of true nervous deafness, much more can be accomplished than is generally believed by the profession and by the public.

Often the integrity of the membrana tympani may be saved, and even the life of the patient spared, by timely puncture of the membrane, in severe acute inflammation of the middle ear.

Openings in the membrana tympani, whether spontaneously or artificially made, usually heal readily, unless very great loss of substance occur.

Great danger lies in allowing purulent discharge from the ear to continue; never in stopping it, by the removal of the causes which are producing it.

Many cases of deafness are supposed to have been inherited. Deafness is not a disease, but a consequence of disease, or defect, of the organ of hearing, and hence it is difficult to conceive of hereditary deafness.

The subject of deaf-mutism merits more attention than it receives. These cases are more frequently acquired than congenital. The defect is far more frequently in the conducting apparatus than in the perceptive apparatus, and hence more favorable for treatment. Wise and humane as it is to provide shelter and care and instruction for the irremediably deaf and mute persons, it is yet better to seek to remove the cause—where it can be done—which, as its consequence, makes such care and provision needful.

It is with much regret that, for want of space, we merely mention the titles of the papers that were next presented for the consideration of the session. Dr. H. O. Marcy, of Cambridge, Mass., gave an abstract of his paper on plastic splints, and exhibited a plaster mill, used to facilitate the preparation of plaster of Paris bandages.

Dr. Sayre then exhibited a girl, 12 years old. This child can neither talk, walk or feed herself, nor has she direct control of any muscle. She has the appearance of an idiot, says Dr. Sayre, and yet she is not an idiot. The girl has no power to express herself in language at all. The limbs cross in an incoordinate manner. The child has been abandoned as a hopeless case, but in Dr. Sayre's opinion, it is a case of reflex incoordination from genital irritation, and can be cured by the removal of the extremity of the clitoris. (1)

Dr. Edmund Andrews, of Chicago, read a paper entitled, "Studies in rendering incisions painless by means of high velocity," and explained the instrument for making such incisions.

Dr. C. Fayette Taylor, of New York, exhibited a new osteoclast, illustrating, by a case, its use in ameliorating deformity and restoring the power of locomotion, in anchylosis of the hip-joint, with bad position. Abstracts of papers entitled as follows were then read: "The open air treatment of wounds," by J. E. Link; "The relative value of incisions and aspiration in the treatment of empyema," by Dr. H. T. Bowditch; "Elastic bandage in the treatment of varicose ulcers, sprained ankle, enlargement of joints from increase in quantity of synovial fluid, as a result of rheumatism, etc., etc.," by Dr. Henry D. Martin, Boston.

Adjourned sine die.

(1) This case came under my care a few days after adjournment of the Association. I operated, and at the end of a week the result is negative.—J. E. Owens.

SECTION IV.—MEDICAL JURISPRUDENCE, CHEMISTRY AND PSYCHOLOGY.

Reported by D. R. Brower, M. D.

First Day—Tuesday, June 5th.

Dr. Eugene Grissom, of North Carolina, Chairman.

Dr. E. A. Hildreth. of West Virginia, Secretary.

The first paper read was entitled

RELATIONS OF SPIRITUALISM TO MEDICAL JURISPRUDENCE,

by John P. Gray, M. D., LL. D., Sup't New York Lunatic Asylum, Utica, N. Y.

It was a paper exhibiting painstaking in its preparation, excellent judgment in its deductions, and reflecting great credit on its able author. The doctor stated that spiritualism is not a form of religious belief in any sense, ordinary or theological, but embraces persons belonging to all religious denominations, as well as those who do not believe in divine revelations; that it has led many persons into practices at variance with sound morality; has led persons to disregard the principles of common statute law in regard to business matters, to giving away their property; that wills, contracts and speculations have been made under direction of so-called spirits and spirit communications; and that such acts have brought the subject at least indirectly within the scope of medico-legal investigation; moreover, many of the phases of human conduct in these people might represent moral perversion or folly, religious or social, and therefore appear to belong to the moralist or theologian than to the physician or lawyer, and might be classed among erratic or superstitious ideas.

Dr. G. then in illustration detailed the case of Capt. E. B. Ward, tried in Detroit, in 1876. In this case it was proposed to set aside a will, on the plea of insanity. It was asserted that there had been an entire change of Capt. B.'s character that was the outgrowth of cerebral disease, and various acts fully sustained this assertion. The court ruled that spiritualism in any of its manifestations, or so-called phenomena, could not be claimed as tending to show the probability of insanity,

but did admit it as a plea of undue influence and that a delusion incident thereto was not an insane delusion. Dr. G. maintained that the court had gone too far, when it placed the communications from spirits on a par with those from living persons, and that there was a vast difference in the influence that would be exerted by communications from living persons and the so-called communications from another world, and referred in this connection to the superstitions of the past, so-called moral epidemics and witchcraft, vampirism, etc. That any one could recognize this principle, and that these mediums undoubtedly appreciated the mingled emotions of terror, curiosity, and religious superstition and brought them into active play in their performances. This can be seen even in the vague terror of a child who hears a strange sound, in the dark, and in the more intelligent fear of the same child when he meets a ferocious animal; the difference being that, between seeing and understanding a danger and so in a measure preparing for it, and that of losing, on the other hand, all control in the midst of dread unknown. This distinction must have weight touching the question of undue influence, and the question of the probable development of insanity. He referred to the case of Robert Dale Owen as showing the power of such belief and the consequences of a revulsion.

Capt. Ward was a man of large wealth and extensive business interests, residing in Detroit, Mich., a man of great energy and very aggressive in character; he did not indulge in spirituous liquors or tobacco, but was largely given to sexual excesses; he had no religious belief, but for a number of years was a spiritualist of a fanatical type. He was married and had several children. At about fifty years of age, he had a slight cerebral hemorrhage, and soon thereafter procured a divorce by his own exertion, from his wife, a paralytic invalid, and to his own disgrace, he then married a young and voluptuous woman, whom he took into the same house to live with his abused wife. By this woman he had two children; about this time his interest in spiritualism became much intensified; he employed female mediums; kept them about him and through them consulted daily the so-called spirits of dead

business men. He fully believed that a medium could describe a person unknown to him by a lock of hair, or by placing a letter of the unknown person against the forehead—a process called psychometrizing; he believed that a certain medium painted portraits while blindfolded, of persons unknown to them; had such pictures painted for himself, and exhibited them to visitors as a proof of spiritualism; he believed in so-called spiritual photographs; he believed in the materialized forms of spirits; he had felt his dead wife strike him a blow; he had shaken hands in the air with an old friend and conversed with him through a medium about the testamentary disposition of his property.

After the death of his wife, which occurred after the birth of the children of the second woman he had taken, and on spiritual communication from her, he framed a will distributing his property equally to the children of both women. He subsequently, at the suggestion of the living wife consulted through two mediums the spirit of her father, and as a result, made a will leaving the bulk of his property to this second woman and her two children, providing a limited annuity to the surviving children of his first wife, disinheriting one of his children because the spirits informed him it was illegitimate; this will allowed the executors ten thousand dollars a year for their services, while the aggregate of annuities for his children was only twelve thousand dollars; it moreover, permitted the executors to appoint one of their number guardian for these children; it required them to give no security, and authorized them to fill vacancies by their own selection.

Capt. Ward belonged to a family with the heredity of insanity—one of his children was insane, and another was imbecile. He had only a limited education, and acquired by his own exertion the vast property he possessed, amounting to several millions of dollars. He died at the age of sixty-three of a stroke of apoplexy.

Dr. Gray's general conclusions on the subject were as follows: Spiritualism cannot be taken as an evidence of insanity. Belief in communications from the unseen world, whether from friends of the dead or other ghostly messengers, is not

in itself an insane delusion. The belief that so-called mediums can communicate with the dead has no foundation, and no evidence has yet been presented of the truth of such communications having been made. They all stand simply on the assertions of so-called mediums.

The implication of fraud must stand against all such professed communications, as the dead party cannot be reached except through the consent or power of the so-called medium, and as the living party to whom the communication is made has no power himself of communicating with the spirit. The whole is received simply through the medium. Such communications of third parties cannot be received in courts of law, and are excluded by the rule of rejecting conversations not held in the presence of both parties. If spiritualism is espoused as the result of disease of the brain, being before repugnant to the belief and mental operations of the individual, then it is an insane delusion. Spiritualism, or its so-called communications, must be received simply under such ruling of the courts as undue influence or as fraudulent, or conspiring influences in the case of wills or contracts; and wills and contracts made under such spiritual directions and influences through mediums should be void.

The most serious question would arise where a person should attempt to commit homicide under the direction of the so-called spirits. The presence of a medium in such a case would suggest fraud and conspiracy. If the individual was a spiritualist through life and before the crime was committed, no insane delusion can be claimed unless it can be found in the existence of brain disease. He would have to stand, in that case, upon the same platform as ordinary criminals. Spiritualism can only be considered as an occasional delusion in cases of insanity, and not as a cause or form of true alienation. It stands on the same footing with its progenitors, witchcraft, vampirism, sooth-saying, fortune-telling, etc. Its medico-legal bearing must be determined by the facts in each case, as to whether it is an insane delusion or not,—that is, the offspring of disease of the brain; or simply entertained as a speculative belief with reference to the unseen world, or the possible con-

dition of men after death. Medical science can take no cognizance of it as a speculation more than it can of any other "ism."

Drs. Yemans, Bukham and Compton discussed the paper endorsing its general conclusions, and commending the author for his labor and success in its preparation.

The next paper read was by Dr. E. Seguin, of New York, on the intervention of physicians in education. Dr. S. recommended the intervention of physicians in two ways. First by transferring as much as possible the teaching to the open air, by creating garden schools. This would relieve the schools from the contagious ferments generated by crowding, and diminish the chances of sickness and mortality; at the same time the pupils would learn from nature what they see imperfectly represented in books, and gain by this contact a love of nature and naturalness which would react on their future avocations. These garden schools would contain, not only classes of botany, natural history, etc., but classes of drawing, carving and modeling from nature, whence would issue generations of true artists and superior artisans. The second and most important part of the physician in education ought to be that of a keeper of the balance of the vital forces of the children. He would register the idiosyncracies of the children; measure the difference of build and of capacity of both sides of the body, and of all the double organs, and recommend accordingly certain forms of active or passive exercises, etc. The accommodation of the ears and eyes must be tested in order that each child occupy at school precisely the place, and use the printed type corresponding to his power of vision and audition. But above all, the physician in charge of the school must register the movements of the great vital functions—the pulse, the respiration, and the temperature before and after various studies—in order to establish in figures the measure of a child's capacity for study, beyond which dangerous consequences to physical equilibrium may ensue.

The paper of Dr. E. Seguin was full of valuable suggestions. It elicited no special discussion.

The next paper presented was by Dr. R. J. Patterson, Super-

intendent of the Hospital for the Insane, Batavia, Ill., entitled, DO FACTS JUSTIFY THE RECOGNITION OF MORAL INSANITY AS A DISTINCT FORM OF DISEASE? To this question, Dr. Patterson replied negatively.

The illustrious Pinel, but more especially Prichard and Ray, have taught that facts do justify the recognition of moral insanity as a distinct form of disease. By these authors, this form of disease is defined to be "an insanity of the affections, and it consists in a perversion of the affections, emotions and passions, and it may show itself in morbid love or hatred, or fear or dread, in sadness or exaltation, or depression of the feelings, without delusion or any appreciable mental aberration, or intellectual impairment." (Ray and Prichard.)

Those who have had much to do with the insane, occasionally see cases of insanity in which the morbid emotional phenomena predominated, especially as signs premonitory to a more pronounced state of intellectual impairment.

They often see cases in which, from trophic or other brain disturbances, the changes in the moral or emotional manifesttations are more prominent than in the intellectual. But it is believed that in all these cases, there may be seen a morbid condition, not only of the affective powers, but also of knowing and reasoning powers. It is argued that the more demonstrative emotional manifestations, are not so distinctive nor of so frequent occurrence, nor so persistent, nor so uncomplicated with morbid intellectual manifestations, as to justify a recognition of them, as a distinct form of insanity. It is claimed that no pathologist is able to say that in all the so-called cases of moral insanity, there are not such changes in the cerebral structures, as to weaken their inhibitory or their propelling forces. None of the cases that have been fully written and adjudicated, are free from well-grounded suspicions of intellectual aberration. Therefore, the term, moral insanity, is not warranted by facts.

Insanity is regarded as a disease of the brain, affecting both the intellectual and emotional faculties. All the forms and shades of insanity depend upon some disease, or abnormal condition of the brain, and the report does not concede

that with a healthy brain, any type of insanity exists. Known facts do not justify the opinion that the brain can be so impaired in its powers as to let fly the emotions and passions with irresistible force, while the will power, the knowing and reasoning faculties are sound or in full force.

The author of the report quotes from Ray's medical jurisprudence, as follows: "An appetite or an affection craves and seeks its gratification under the control and guidance of the reflective powers. If the efficiency of the latter has been impaired by disease or congenital defect, that check is not exerted and the person goes along, like a ship drifting without a rudder, at the mercy of the winds and waves. If the force of an affection or an appetite is increased by excitement of disease, then the check of the higher powers is insufficient for the purpose. It is a matter of relative power and it is quite immaterial whether the result proceeds from impaired intellect or irresistible activity of the affective powers." Dr. Ray thus admits that the higher or intellectual powers are given to guide and control, and that the moral powers naturally seek their guidance and control.

Dr. Patterson in his paper maintains that the reason why the intellectual powers fail to fulfil their office of control is, because the brain has been so invaded by diseases as to rob the intellect through its defective instrument of its power to command. Again, Dr. Ray substantially says: "The higher or intellectual powers when in force and health may be overcome by the lesser, when the lesser are excited and increased in force by disease." Thus moral insanity it is said may result.

Dr. Patterson admits that the intellectual powers may be weakened by disease so as to be easily overcome, but denies that the affective powers are even increased in force by disease; and asserts that one of the distinguishing features of all the forms of mania, is excitement with diminished force.

In the reports of 27 American institutions for the insane, into which 47,174 patients were admitted, twenty-two only are classed as moral insanity.

Among the objections assigned in the report, to recognizing moral insanity as a distinct form of disease are:

I. There are probably, at the present day, no cases of insanity in which it can be shown that, as a result of brain disease, the person is a moral maniac, with a *rational intellect;* and if there could be such cases, the number must be insignificant.

II. No human interests can suffer by not recognizing moral insanity as a distinct form of disease. It is not possible that any really insane person will suffer under the influence of expressed testimony; if the opinion shall be insanity simply, without the prefix. The law does not require medical men to classify, and the pathological sections in classification are too numerous for medico-legal purposes or the ends of justice.

III. The term not only does no good, but positive harm, by enabling unscrupulous lawyers to set up a specious plea, simply because nothing else will serve their purpose. Especially is this true in cases of homicide, where the intellect is believed to be rational. Such, for example, are the cases of Sickles, Cole, McFarland and Laura Fair.

IV. Another objection to the recognition of so-called moral insanity, is, that it does not, and probably never can, receive the sanction of our higher courts and most learned lawyers; and further, with the medical superintendents of American institutions for the insane, as shown by the statistics already cited, this form of disease has not of late years, found favor except with a comparative few.

It has never been sanctioned by many of the ablest authors in the field of medical jurisprudence; and the plea of moral insanity wherever made is looked upon with suspicion by a majority of men of learning in the professions, who by special study are most entitled to hold opinions in regard to it.

The discussion was opened by Dr. Gray, of New York. The doctor thoroughly agreed with the sentiments of the paper, but thought Dr. Patterson, in using the numerical method, should take the whole number of insane treated by the successive superintendents through a series of years in the various institutions, instead of taking the entire number in some cases, and only a single year in others, that Dr. P. had quoted the State Lunatic Asylum at Utica for one year, and as

among the institutions where no moral insanity had been reported, this was not consistent with facts. Dr. Gray, in the twenty-five years of his superintendency of the institution, had reported no cases of moral insanity in ten thousand insane, while Dr. Brigham, his immediate predecessor in the five years of his superintendency, aggregating about two thousand cases, had reported more cases of moral insanity than Dr. Patterson had presented from all the institutions of the country. Dr. Brigham undoubtedly represented the prevailing views of that period, in recognizing this so-called form —recognizing several classes of moral mania which we now regard simply as single manifestations of cases of general insanity. Dr. Gray did not recognize impulsive or transitory mania as a disease that could come and go in a moment; such would be in conflict with all ideas of physiology and pathology. He recognized no disease of the mind, *per se*, but simply disease of the brain disturbing the mental manifestations. He referred to the paper read by Despine before the Academy of Paris, to which a prize was awarded, in which insanity was described as sickness of the soul, and in which the declaration was made that physical disease should not be associated with the idea of insanity. Dr. Gray characterized this so-called insanity of Despine as simply sin, when he speaks of passions dominating and overwhelming the individual. Dr. G. also referred to Dr. Ray in his Jurisprudence of Insanity as advocating moral insanity almost entirely on historical cases, and thought that it was a very significant fact that a superintendent with Dr. Ray's very large experience should have drawn his conclusions as to the existence of such a myth from cases that had been handed down in the books, instead of giving cases from his own clinical observation. He thought much of the difficulty with regard to moral insanity had arisen from the inconsiderable mingling of cases of arrested development, and moral delinquency with disease that they presented entirely different cases; while this class were delinquent morally and intellectually from hereditary influences and association with early degrading habits, they were not the subjects of disease, and therefore not lunatics in any true medical sense; that

our present civilization recognized this and provided homes, suitable education and reformatory institutions for their development and care, and for the protection of society from their vicious and unrestrained passions, and for the higher class of delinquents mentioned by Despine, penitentiaries and work-houses.

It is satisfactory to find that Dr. Ray's opinion has been modified, and he had no doubt that if Dr. Brigham had tried, in this age of increased clinical observation, he would have reversed his judgment on this point. Dr. Gray stated that, when he first commenced the study of insanity from reading, he fully believed in the existence of moral insanity, but when he came to apply the test of clinical examination, failed to find any such cases as were described in the books; that some of these cases proved to be only deep ingrained immorality, while others were only cases of general insanity, with moral perversion strongly marked, at any rate, in all the cases he had seen, both ordinary and criminal, he had never met a case of moral insanity. He believed, with a recent English writer, that such cases had their existence only in ink and paper.

The paper of Dr. Patterson was a very able and lucid exposition of the subject, it was further discussed by Dr. Compton, of Mississippi, Drs. Knight and Seguin, of New York, and Dr. Buck, of Canada; Drs. Seguin and Buck maintaining the affirmative.

The next paper was read by Dr. Buckham, of Michigan, on "Medical Testimony, with Special Reference to Cases of Insanity." In it, Dr. B. showed that general medical practitioners were not properly considered "experts" in insanity, because in an ordinary medical education, mental diseases are not taught. He then passed to the question of emotional insanity, and took the ground that such a state of mind had never been proved, and his easy inference was that it had no existence in fact. The paper closed with the authors' suggestions for changes in medical educations, to remove the evils of which he had spoken.

A committee, consisting of Drs. Gray and Knight, of New York, and Hildreth, of West Virginia, was then appointed to

consider the suggestions of Dr. Buckham, and the subject of medical expert testimony in general, and report to the Association at its next session.

SECTION V.—STATE MEDICINE AND PUBLIC HYGIENE.

Reported by J. Suydam Knox, M. D.

First Day—Tuesday, June 5th.

Dr. E. M. Hunt, N. J., Chairman; Dr. Waterman, Ind., Secretary pro tem.

After a brief introductory address by the chairman, and the transaction of some miscellaneous business, Dr. J. L. Cabell, of Va., was introduced, and read an able and exhaustive paper upon the Etiology of Enteric Fever.

The germ theory of disease was reviewed; the different views of Budd and Murchison commented upon; and the arbitrary manner of English writers in limiting the causation of enteric fever to one source criticised.

In order to study the etiology of enteric fever, the writer addressed a series of questions to physicians of eminence in different parts of the Union, especially the State of Virginia. Many of the replies were contradictory. After defining the difference between direct and miasmatic contagion, positive cases and opinions were quoted from these replies, for and against direct contagion. The conclusion reached was, that while the evidence of direct contagion was often incomplete, there was positive proof of contagion from miasmatic influences; viz., infected water or air. Many positive opinions were also quoted of the *de novo* origin of the disease, and the cases cited. Still, against such an origin it may be said that the disease may occur under favorable conditions, where direct importation may be excluded; thus from germs left long ago, or from germs latent in the body and developed by favorable circumstances, or by wide diffusion in the air, of dessicated but living germs.

As a summary from the answers received, the following may

be stated as external conditions favorable to the development of enteric fever:

1. Excremental filth undergoing moist decomposition, and contaminating air and water.
2. Contaminated milk.
3. Vegetable decomposition.
4. Decay of dry timber.
5. Soil saturated with organic impurities independently of water contamination.
6. Contaminated water.
7. Some undefined telluric influence not associated with organic contamination.

In regard to the relations between typhoid and malarial fevers, a majority of the correspondents consider them distinct and of separate origin. A few recognized hybrids. Most consider typho-malarial fever to be an adynamic form of malarial fever, due to pythogenic influences. Some recognize a decided antagonism between the two, and quote the marked absence of typhoid in malarial regions, and if the former does occur it is of mild type. The drying up of a marsh producing malaria, will introduce a new type of fever; viz., typhoid. Abundant illustration of this is seen in Illinois and the South. May be due to the fact that malaria requires a saturated soil, and typhoid a dessicated one.

English theories exclude epidemic influences, yet apparently typhoid fever may extend in the track of atmospheric currents independent of direct intercourse. Indeed, the observation of some gives it a migratory character, due neither to local causes nor yet to direct contagion. Further observation is necessary to establish many of the above conclusions. To do this, isolated cases must be studied, and meteorological conditions during the presence of an epidemic must be observed.

In the discussion that followed, Dr. Comyges, of Cincinnati, reported a succession of cases in his own family, proving the infectious character of enteric fever.

Dr. Plummer, of Rock Island, insisted that typhoid and malarial fever can occur at the same time in the same patient. Proven by post-mortem examinations. There were many such specimens in the Washington Museum.

Dr. Woodward, U. S. A. Wished to emphasize the fact that typhoid and malarial fevers alternate, and also another fact, that sometimes on a colossal scale, they occur together. This was largely illustrated in the Union army during the late war. Another point he wished to make, was that men, who deny the existence of typho-malarial fever do not make post-mortems. When examination is made of fatal remittants, enteric lesions are found. Again, the only facts supporting the germ theory of disease, are those resulting from inoculations. What is the material inoculated? Plainly diseased tissues and germs combined. Which produces the resulting disease, the tissue or the germs? Logically, the diseased tissue, rather than the germs, since all diseased tissues differ, whereas germs, chemically, morphologically and microscopically, are the same.

Dr. Pratt, of Michigan, spoke positively, from experience, of the modifying influence of malaria upon typhoid. During a practice of 20 years, in a malarial district, he had never seen there a case of enteric fever.

Dr. Freeman, of Missouri, had frequently, in his state, seen malarial fever driven out by typhoid, and vice versa, and also to co-exist with it. He had seen desperate cases of typhoid much benefited by being taken into malarial districts.

Dr. Hoar, or Maryland, made remarks of similar import.

Dr. English, of New Jersey, called for the publication of Dr. Cabell's paper, which was moved and passed.

SECOND DAY, WEDNESDAY, P. M., JUNE 6TH.

Dr. J. R. Blach, of Ohio, opened the proceedings with a paper on "The Laws of Heredity, with Special Reference to the Transmission of Morbid Tendencies, Abnormal Forms, and the Effects of Intermarriages." He said that the improvement of the domestic animals had long been the source of earnest thought and care, and the objects sought to be accomplished, whether beauty, strength, or endurance, they had been eminently successful in obtaining. As regards the human race, nothing of the kind had been attempted, everything being left to chance except as regards efforts to train the head

and heart. The leading object of this culture was social success, and to gain this the welfare of blood and brain was often sacrificed. There was no wonder that the boasted head of creation should be at its foot so far as vigor, health, and longevity was concerned. It was certain that the stamina of man as a race was, if not retrograding, at least not advancing. The especial reason of this was the over-exercise of some and the enforced inaction of other organs. Brain-toil was commenced far too early, ere yet the brain was capable of sustaining it, and only the strongest young men and women were able to go through a long collegiate curriculum unscathed by disease. This fact, demonstrated before the fertile period had been reached, had a special bearing upon hereditary modification. During the more primitive forms of civilization, weak and imperfectly developed children were more likely to perish by the hardships to which they were exposed. Physical strength was more sought after in those days, out-door exercise was general, and the diet simple and wholesome. To-day every possible means were adopted to keep such children alive, and when they reached manhood or womanhood they were advised and encouraged to marry healthy persons, thus aiding to extend and intensify the prevailing blood-deterioration. The consequence was the multiplication, to an alarming extent, of hospitals and infirmaries.

The inference of degeneration was shown by vital statistics. In Rhode Island, for instance, the birth-rate had sunk lower than in any European nation with the exception of France. It was found, and would be found, necessary to multiply hospitals and infirmaries if the laws of health were to be ignored. It would seem, if this was to be kept up, that, as the process went on, one-half of a nation would be kept in constant employment in caring for the helpless and diseased other half.

The speaker had addressed 250 circulars to leading physicians, asking their personal experience as to the transmission of hereditary infirmities, and tendencies to disease, and to the effects of inter-marriage. Sixty-five responses were received, embracing the vital history of ninety-three persons. Of these only thirty-three, fifteen males and eighteen females,

were reported as free entirely from inherited predisposition to disease. The remarkable predisposition through reproduction of some sexual variation of a normal character was indisputable, but it was not proved that the same law extended to abnormal variations. It had been observed that the Jewish race was more free from disease and longer-lived than other races in the same environment. There was a marked tendency to reversion to older or more durable types, especially when the modifying influences were withdrawn. All authorities agreed that characteristics became more firmly fixed as they were transmitted through generations. The many varieties of pigeons which breeders had been able to produce by careful selection, one and all, when left to natural influences, reverted to the primitive type. This was also shown in regard to cases of congenital defects. When a male or female deaf-mute married a sound person the offspring was very seldom affected. The result of crossing varieties of domestic animals was often a reversion to the primitive type.

Through the reports received from some of the most advanced medical thinkers of the day, many typical instances of recovery or reversion from an inherited tendency to disease, when the conditions favorable thereto had been faithfully and skillfully carried out, had been collated. Reversion from acute diseases was an every-day affair. A large number of instances of the reproduction of congenital peculiarities and abnormal forms were cited by the lecturer, who then proceeded to give some particulars as to

CONSANGUINE MARRIAGES,

the statistics being derived in the same manner and relating entirely to physicians or their connections. In twenty of these the degree of relationship was cousin-german, with the following results upon their offspring: No ill effects in five cases; in the sixth, three of the children had supernumerary fingers and toes; the seventh, eighth, ninth, tenth, eleventh and twelfth, one or more children imbecile or idiotic, two nearly blind and deaf, one a dwarf, one epileptic. In the thirteenth instance, one had a cleft palate; in the fourteenth, two were strikingly handsome, but below par in intellect; in the fifteenth, one

sickly and feeble; in the sixteenth, one without the right arm but with rudimentary fingers on the shoulder; in the eighteenth, one had talipes equinus; in the nineteenth, all the progeny were unhealthy and scrofulous; and in the twentieth instance, of a large family, all were hideously deformed, though clear and bright in intellect. From these figures, the deduction was made that the chances of the issue of consanguineous marriages, having well-formed bodies and sound minds, were so small that the strongest legal enactments against them were justified.

In conclusion, the lecturer declared that the more the primitive phases of civilization were considered, the more apparent did the fact become that the somewhat violent hardships and privations to which life was then exposed, fell with special force on the weak and helpless, and little, if at all, on the vigorous, thus tending to the elimination of the one and the perpetuation of the other. It was apparent, further, that few persons possessed the strength of mind necessary to abstain from the perpetuation of the species, simply because they inherited a congenital disorder. Yet even this fact had an outcome not to be deplored. High intelligence, strong wills, and consistent behavior would survive, while feeble-minded ignorance and volitions unstable as water would carry the blood on to imperfection, disease and extinction.

Dr. A. N. Bell, editor of *The Sanitarian*, of New York, followed with an exhaustive article on "Tuberculosis in milch cows, and the contagiousness of tuberculosis of the digestive organs." This was one of the most valuable papers read before the American Medical Association this year. It contains an account of Dr. Bell's personal investigations and observations carried on in the various veterinary schools of Europe. The statistics from numerous observers in the various civilized countries were carefully collated and compared. The writer displayed great industry and patience in preparing his paper, and the conclusion to which his investigations and those of other original workers and observers led, is the certain transmissibility of tubercles, or of the tubercular dyscrasia to eaters of meat from animals affected with *tubercle.*

Dr. Bell pointed out the exceedingly great importance of securing the services of comepetent meat inspectors, and of enforcing a police espionage over our meat stalls, for sanitary purposes.

Dr. Comegys, of Ohio, then read a paper containing resolutions which are herewith appended. He contended for a more rigid enforcement of the laws in regard to the practice of medicine. Unqualified persons should not be allowed to practice, and the State should exercise a careful supervision over the issuance of diplomas. Another point was that the medical profession was practically excluded from political life. The lecturer concluded by offering the following resolutions, which he respectfully submitted for the consideration of the Committee on State Medicine:

Resolved, That the medical profession, by reason of its paramount claims as guardian in so great a degree of the best interests of society, should seek to give authority to its claim by making the State the expression of it.

Resolved, That it is the duty of the medical profession to labor for the establishment of a Medical Council of State in each State, which shall be empowered by law to make rules and regulations for the qualifications of medical practitioners, and the regulation of whatever is connected with public hygiene.

Resolved, That it is the duty of the profession to exert its influence to secure a fair representation of physicians in legislative bodies, because their participation in legislation is most important to the public weal.

Resolved, That the devotion of physicians to medical politics will not hinder their culture or usefulness as practitioners, but rather will greatly strengthen them in their ability to promote good order and human happiness.

The Chairman then announced that discussion was in order, and Drs. Bell, of New York, Pratt, of Kalamazoo, Mich., and Lyster, of Michigan, made a few comments on Dr. Black's paper, which was referred to the Committee on Publication. Dr. Bell's paper was also so referred with the proviso that it might be taken up for discussion at a future meeting.

THIRD DAY, THURSDAY, JUNE 7.

Dr. Elisha Harris, of New York, presented a paper upon "Results of State Legislation on Public Health." Owing to other engagements, Dr. Harris was unable to read his paper on this subject, but after submitting the paper, presented the following suggestions as subjects of discussion:

1. In organizing boards of health, the manner of conferring authority on men already over-burdened with other duties, fails to give sufficient authority or to secure the confidence of the people.

2. In defining the powers and duties of local boards of health, the powers conferred are too indefinitely stated, and the laws of nearly all the States, upon this subject, need revision.

3. The proper definition of nuisances, often answers the purpose of abating them.

4. There is need of specific provisions against contagious diseases.

Such laws as exist have come to be regarded very much misunderstood and abused, so as to bring into disrepute medical boards.

A broader basis must be secured through conference with army, navy, and state medical boards.

Thus there should be a national basis for laws of quarantine.

There should also be general regulation of certain sources of contamination of certain articles of food.

We know that one of the sources of impairment of animal food, is due to want of sanitary care of animals in transportation. This is a worthy subject, and requires proper legislation.

Also the subject of trichinæ requires scientific observation and treatment.

5. Laws are required for the proper removal and prevention of general sources of diseases, such as sewerages and sanitary drainage.

Something more than the dicta of local boards of health or local engineers, is needed. This question involves the health

and wealth of States as much as certain localities, therefore there is needed general and systematic topographical state surveys.

After a general discussion of the subjects suggested the business of this section closed.

THE AMERICAN MEDICAL COLLEGE ASSOCIATION.

The Provisional Association of Representatives of American Medical Colleges, met in Chicago, June 2d, at the Palmer House, at 10 a. m. The Association was formed in Louisville in 1875, and met in Philadelphia in 1876. Its object was to form a permanent confederation, to be known by the title which heads this item. Representatives, by person or proxy, from the medical colleges named below, were present. Prof. J. R. Biddle, of Philadelphia, was in the chair, and Prof. Laertus Conner, of Detroit, was secretary. The work of the Provisional Association consisted in adopting a constitution, by-laws and articles of confederation, which were signed by the representatives of different colleges present. On Monday, the Provisional Association, adjourned *sine die*, and the permanent organization, known as the American Medical College Association, was formed, with Prof. Biddle as President, Prof. N. S. Davis, vice-President, and Prof. Connor as Secretary.

The constitution and by-laws are herewith appended. The ultimate end of the association is more manifest in the Articles of Confederation, which are to be subscribed and conformed to by all the associated colleges.

CONSTITUTION.

ARTICLE I. NAME.

The name of this Association shall be the "American Medical College Association."

ARTICLE II. OBJECTS.

The objects of this Association shall be the advancement of

medical education in the United States, and the establishment of a common policy among medical colleges in the more important matters of college management.

ARTICLE III. OFFICERS.

The officer shalls be a President, a Vice-President, and a Secretary and Treasurer, who shall severally perform the usual duties of such officers. They shall be elected by ballot at each session of the Association, and shall serve from the time of adjournment of such session till the adjournment of the next ensuing session. But present officers shall be perpetually eligible to re-eletion.

ARTICLE IV. MEMBERSHIP.

SECTION 1. Any regularly chartered medical school in the United States which shall conform and subscribe to the Articles of Confederation of this Association, may become a member of the same.

SECTION 2. Any college member which shall be convicted upon trial of willful violation of any of the Articles of Confederation of the Association, or which shall fail to make answer to such charges of such violation, duly preferred, at the meeting at which the same come up for trial, shall thereby forfeit his membership in the Association.

SECTION 3. Any college which shall thus have forfeited its membership, or any college whose original application for membership shall have been rejected by the Association, shall not be eligible for membership again until a period of two years shall have elapsed since the time of forfeiture or rejection.

ARTICLE V. MEETINGS.

Meetings of the Association shall be held not oftener than annually, at some time in the months of May or June. The exact time and place shall be fixed by the President with regard to the object for which the meeting is to be held; but when, in his judgment, there is no special reason to the contrary, preference shall be given to the place of meeting of the American Medical Association, and to a time conveniently near to the time of meeting of the same.

ARTICLE VI.. REPRESENTATION AND VOTING.

At the meetings of the Association each college may be represented by one or more delegates, or may submit, in writing, resolutions, amendments to the Constitution or By-Laws, or its vote upon pending questions, except upon charges against a college for violation of the Articles of Confederation. In all cases each college shall have but a single vote, and when representation is by two or more delegates, the vote shall be cast by the senior delegate in the Faculty rank. The President shall not be deprived by his office of his privileges as delegate in voting. On questions connected with the trial of charges against a college, the accusing and accused colleges shall have no vote.

ARTICLE VII. AMENDMENTS.

Amendments to the Constitution may be proposed at the meetings of the Association, or by letter to the Secretary. In order to be entertained, they must be seconded at the time of proposal by one other college, or its delegate. When proposed at a meeting, or submitted to the Secretary, after call for a meeting has been issued, they must lie over a year before a vote is taken. Upon voting, two-thirds of the votes cast shall be necessary for adoption.

BY-LAWS.

ARTICLE I. CALLS FOR MEETINGS.

The calls for meetings shall be issued by the Secretary, after conference with the President as to time and place, and must not be later than two months before the proposed time of meeting. The Secretary shall call meetings upon:

1. Direction of the President, who is empowered to convene the Association at his pleasure.
2. Resolution of adjournment at previous meeting.
3. Receipt, before March 1, of proposed amendments to the Constitution, By-Laws, or Articles of Confederation, duly recommended by two colleges, or of a written request for a meeting for any purpose, when proffered by not less than three colleges.

4. Receipt, before January 1, of charges and specifications against a college for violation of the Articles of Confederation.

In all cases where a call for a meeting is issued, the object of the same must be stated in the call, with proposed amendments, resolutions, or charges, given in full.

ARTICLE II. ORDER OF BUSINESS AT MEETINGS.

The Order of Business at meetings shall be as follows:

1. Presentation of credentials of delegates. 2. Reading of minutes of last meeting. 3. Voting upon pending questions. 4. Reading of Annual Reports of Members. 5. Introduction of new business. 6. Election of Officers for the ensuing term. 7. Report of the Secretary and Treasury. 8. Adjournment.

ARTICLE III. ADMISSION TO MEMBERSHIP.

SECTION 1. Colleges which shall, through their delegates, subscribe to the Constitution, By-Laws, and Articles of Confederation, at the meeting of the Provisional Association of Medical Colleges, at which the same shall have been adopted, and shall file with the Secretary a copy of their college charter, shall thereby become members of the Association.

SECTION 2. After adjournment of the aforesaid meeting, colleges wishing to join the Association must apply to the Secretary, and forward a copy of their College Charter. The Secretary shall thereupon send notice of such application to all the colleges of the Associatian. If, after four months, no objection shall have been received, the Secretary shall then send to the applicant a copy of the Constitution, By-Laws, and Articles of Confederation, and upon return of the same duly subscribed by an authorized officer of the college, shall enter the name of said college upon the roll of members of the Association. Objection to the applicant on the ground of nonconformity to the Articles of Confederation, may be made by any college-member; but the same must be submitted, in writing, to the Seretary, and within four months after receipt of the notice of application. Such objection must be in the form of definite charges and specifications. Upon the receipt

of a written objection, the Secretary shall immediately forward the same to the applying college, and, where the objection shall have been received before January 1, shall call a meeting of the Association for the ensuing season to consider the same. At this meeting the applying college shall be allowed to send a member of its Faculty to conduct its case before the Association. The consideration of the objections shall then be conducted in the manner prescribed in Article IV. for trial of charges against a member, and a two-thirds vote shall be necessary for admission of the applicant.

SECTION 3. Any college which shall have been disqualified for membership for two years, as provided in Article IV, Section 3, of the Constitution, and which shall at the expiration of that period desire to join the Association, must make application again in the regular form.

ARTICLE IV. CHARGES AGAINST MEMBERS.

SECTION 1. Charges against a college member for violation of any of the Articles of Confederation shall be entertained only when preferred by a college-member of the Association, and accompanied by definite specifications. Such charges and specifications must be submitted in writing, to the Secretary, on or before January 1. Upon receipt, the Secretary shall immediately transmit the same to the accused college, and, unless the charges be in the meantime withdrawn, shall convene the Association for the ensuing season for trial of the accusation.

SECTION 2. At the trial of the charges against a member, the accusing college must be represented by delegate, but the accused may, at its option, submit a written defense only, without representation by delegate. The case for the prosecution shall first be submitted, and then that for the defense. No counsel shall be allowed, but the witnesses on either side may be cross-examined by any delegate present. The Association shall decide by majority vote upon the admissibility of evidence, or of questions to witnesses. Upon closure of the case, a vote shall be taken thereon before the final adjournment of the session, and a two-thirds vote shall be necessary for conviction.

SECTION 3. In case of failure by an accused college to make answer to the charges at the meeting of the Association, duly convened for trial of the same, the meeting may, by majority vote, drop the accused college from the roll of members, and such dropping shall be equivalent to forfeiture of membership for conviction of violation of the Articles of Confederation.

SECTION 4. No member shall be tried twice upon the same specifications.

ARTICLE V. DELEGATES.

SECTION 1. Delegates to the meetings of the Association must be chosen from among the executive officers of a college, or from members of the Faculty having a vote upon the passage of candidates for graduation.

SECTION 2. In case objection is made to any delegate on grounds of personal unfitness, the case shall be argued before the meeting, and by a two-thirds vote the delegate may be excluded. But in such case the retiring delegate shall be entitled to file with the Secretary such communications, or votes upon pending questions (except upon charges against a member, or applicant), as he may have been instructed by his college to present to the meeting.

ARTICLE VI. AFFILIATED COLLEGES.

SECTION 1. The list of American affiliated colleges to be recognized by the Association shall include only the following: 1. Members of the Association. 2. Colleges not members, which are not ineligible for membership, and which conform to the following of the Articles of Confederation: Article 1; sections 1 and 3 of Article II.; Article III.; Article V.

SECTION 2. The Secretary shall send a copy of this Article and of the Articles of Confederation, to all American Medical Colleges, not members of the Association, with a request to know if they desire to be placed upon the Affiliated list, and if they conform to the requirements demanded. Upon receipt of an affirmative answer, accompanied by a copy of the College Charter, he shall notify all members of the Association of the fact, and the admission of the college to the Affiliated

list shall then be proceeded with in the same manner as provided in Article III., for admission to membership.

SECTION 3. Charges against an affiliated college shall be proceeded with in the same manner as provided in Article IV., for proceedings in case of charges against a member.

SECTION 4. Upon conviction of non-conformity with the necessary requirements for a place upon the list of Affiliated Colleges, the convicted college shall be dropped from the same, and shall not be eligible for re-establishment until a period of two years shall have elapsed.

ARTICLE VII. REPORTS.

SECTION 1. Every college member and every affiliated college shall forward yearly to the Secretary of the Association as many copies as there are colleges in the Association, of every catalogue, circular, announcement, prospectus, form of advertisement or other publication issued by the college during the year, and shall also make a full and true report embracing the following points: 1st. Honorary degree conferred within the year, with the name and age of the recipient, and the reasons why the degree was given; 2d. The names of all persons who have been allowed remissions or reductions of established fees, with the reasons in each case for the proceeding. If no honorary degrees have been conferred or reductions or remissions of fees made, the fact shall be reported.

SECTION 2. At each meeting of the Association the printed documents specified in Section 1, shall be distributed among the delegates present, and the special reports as to honorary degree and reductions and remissions of fees shall be read to the Association by the Secretary.

SECTION 3. The documents and reports called for in Section 1, must be forwarded to the Secretary within four weeks after the annual commencement of the college. In case of failure to do so on the part of any college, the Secretary shall notify the delinquent of its failure, and if the reports be not received within four weeks after issuing such notice, the delinquent college shall be suspended in its membership of the Association, and in its privileges as an affiliated college, until the

required reports be made. In such case, the Secretary shall notify both the delinquent and all the colleges of the Association of the suspension, and upon the receipt of the reports, of the reinstatement of the delinquent college.

ARTICE VIII. ASSESSMENTS.

SECTION 1. To meet expenses the Secretary may assess the college of the Association in a sum not to exceed $10 a year.

SECTION 2. He shall account for his receipts and expenditures at each meeting of the Association.

SECTION 3. Any college which shall be two years in arrears shall be notified of the fact by the Secretary, and if the dues be not paid within three months thereafter, the delinquent college shall be suspended in its right of representation in the Association until payment be made.

ARTICLE IX. AMENDMENTS.

Amendments to these By-Laws shall be proposed and adopted in the manner prescribed for amendments to the Constitution.

ARTICLES OF CONFEDERATION.

ARTICLE I. OF THE FACULTY.

The medical members of the Faculty must be *regular* graduates or licentiates and practitioners of medicine, in good standing, using the word "regular" in the sense commonly understood in the medical profession.

ARTICLE II. OF TUITION.

SECTION 1. The scheme of tuition shall provide for a yearly systematic course of instruction covering the general topics of Anatomy, including dissections, Physiology, Chemistry, Materia Medica and Therapeutics, Obstetrics, Surgery, Pathology and Practice of Medicine. The collegiate session, wherein this course is given, shall be understood as the "regular" session.

SECTION 2. Said Regular Session shall not be less than twenty weeks in duration. This Section to go in force at and after the Session of 1879-'80.

SECTION 3. Not more than one regular session, counting the regular session as one of the two courses of instruction required for graduation, shall be held in the same year.

ARTICLE III. REQUIREMENTS FOR GRADUATION.

No person, whether a graduate in medicine or not, shall be given a diploma of "Doctor of Medicine" who shall not have fulfilled the following requirements, *except* as hereinafter provided for in Article IV.:

1. He must produce satisfactory evidence of good moral character, and of having attained the age of twenty-one years.

2. He must file a satisfactory certificate of having studied medicine for at least three years under a *regular* graduate, or licentiate and practitioner of medicine, in good standing, using the word "regular" in the sense commonly understood in the medical profession. No candidate shall be eligible for final examination for graduation, unless his term of three years study shall have been completed, or shall expire at a date not later than three months after the close of the final examination. This section to take effect at and after the session of 1879-'80.

3. He must file the proper official evidence that, during the above mentioned three years, he has matriculated at some affiliated college, or colleges, for two regular sessions, and in the course of the same (except as provided in 4,) has attended two full courses of instruction on the seven topics mentioned in Article II. But the *latter*, at least, of the two full courses must have been attended at the college issuing the diploma. No two consecutive courses of instruction shall be held as satisfying the above requirements, unless the time between the beginning of the first course and the end of the second is greater than fifteen months.

4. In case a college shall adopt a systematic graduated scheme of tuition, attendance on the whole of the same shall be equivalent to the requirements mentioned in 3, *provided* such scheme includes instruction in the seven topics mentioned in Article II., and requires attendance at at least two yearly regular Collegiate Sessions of not less than twenty weeks' duration each.

5. The candidate must have passed a personal examination before the Faculty on all seven of the branches of medicine mentioned in Article II.

6. He must have paid in full all College dues, including the graduation fee.

ARTICLE IV. OF HONORARY DEGREE.

An honorary degree of "Doctor in Medicine" may be granted in numbers not exceeding one yearly, to distinguished physicians or scientific men of over forty years of age. But in such case the diploma shall bear across its face the word "Honorary" in conspicuous characters, and the same word shall always be appended to the name of the recipient in all lists of graduates.

ARTICLE V. OF FEES.

SECTION 1. All fees shall be paid in lawful money, and no promissory notes or promises to pay shall be accepted in lieu of cash for payment of fees.

SECTION 2. No ticket, or other certificate of attendance upon college exercises, shall be issued to any student until the dues for the same shall have been fully paid.

SECTION 3. The established fees for the exercises of the regular session, except the matriculation fee, graduation fee, fee for dissections, may be reduced not more than one-half to graduates of other affiliated colleges of less than three years' standing, and to under-graduates of the same who have already attended two full courses of the instruction of the regular session.

SECTION 4. The same fees may be remitted altogether to a college's own alumni, to graduates of other affiliated colleges of three years' standing—the three years dating from the time of graduation and ending at the close of the regular session for which the tickets are given—to under-graduates who have already attended two full courses of the instruction of the regular session, the latter of which, at least, shall have been in the college making the remission, and to theological students, when not candidates for a diploma.

SECTION 5. The same fees may be reduced or remitted to deserving or indigent students, to a number not exceeding five per cent. of the number of matriculants at the previous regular session of the college.

SECTION 6. Under no circumstances whatever, other than the above, shall the Faculties, or any members of the same, grant, *upon their own authority*, any remissions or reductions of established fees. And it is distinctly understood and agreed that the Faculties will discountenance and oppose the authorizing by governing Boards of the admission of individual students upon other than the regularly established charges for their grade.

SECTION 7. Remission or reduction of fees for other exercises than those of the regular session, return to a student of any moneys after payment of fees, or an appropriation of funds of the college for payment of any student's fees, or part thereof, shall be deemed violations of the provisions of this article in regard to remission or reduction of fees.

ARTICLE VI. OF RECOGNITION OF OTHER COLLEGES.

No college shall admit to the privileges accorded in Articles III. and V. the students or graduates of any college which, during any period of the student's or graduate's pupilage, shall have been excluded from the list of affiliated colleges recognized by the Association.

ARTICLE VII. AMENDMENTS.

Amendments to these Articles shall be proposed and adopted in the manner prescribed for amendments to the Constitution.

The following named colleges became members of the Association by signing the name of the incorporated college, and under each college name the name of the delegate to the convention: Jefferson Medical College, J. B. Biddle; College of Physicians and Surgeons, Medical Department of Columbia College, New York, Edward Curtis; Medical Department, University of Louisville, J. M. Bodine and L. B. Yandell, Jr.; Hospital and College of Medicine of Louisville, William Bailey

and Dudley S. Reynolds; Medical Department, Iowa State University, W. F. Peck and E. J. Clapp; Chicago Medical College, Medical Department of the Northwestern University, N. S. Davis; Medical Department, University of Wooster, O., W. J. Scott and H. J. Herick; Cleveland Medical College, Medical Department Western Reserve College, Isaac M. Himes; Detroit Medical College, E. W. Jenks, Theodore A. McGraw, and Leartus Connor; Starling Medical College, S. Loring; Medical Department University of Vermont, A. T. Woodward; Medical Department of the Nashville and Vanderbilt Universities, John H. Callender and T. A. Atchison; Missouri Medical College, St. Louis, P. Gervais Robinson; Dartmouth Medical College, Hanover, N. H., C. S. Dunster; Kansas City College of Physicians and Surgeons, T. B. Lester; Miami Medical College of Cincinnati, O., John A. Murphy; Louisville Medical College of Louisville, Ky., C. W. Kelly and L. G. Garland; Department of Medicine and Surgery of the University of Michigan, Donald MacLean; Rush Medical College, Chicago, Moses Gunn; Medical Department of the University of Louisiana, T. G. Richardson; Indiana Medical College, John A. Comingar; Medical College of Fort Wayne, Ind., H. A. Clark; Woman's Hospital Medical College of Chicago, Charles W. Earle.

Prof. McGraw, of Detroit, offered the following resolution, which was unanimously adopted:

Resolved, That each and every confederated college publish in its annual circulars and catalogues the names of all confederated and affiliated colleges beginning with the announcements of 1878.

After the customary complimentary thanks to those instrumental in organizing and giving shape to the affairs of the Association, and to the presiding officers, the Association adjourned.

CONVENTION OF AMERICAN MEDICAL EDITORS.

The Association of American Medical Editors met in the reading-room of the Palmer House, on the evning of June 4th. H. C. Wood, M. D., of Philadelphia, occupied the chair, and Dr. F. H. Davis, of Chicago, acted as Secretary.

The President, in his annual address, threw out the following points for discussion: 1. The number of medical periodicals in this country is too large; a reduction in number would afford a few really good journals a decent support; 2. Societies should be induced to discontinue the printing of their transactions in extra volumes which reach but a very limited number of readers; those transactions should be carefully condensed and then published in some medical journal which the society could afford to send to every member for less than the cost of the annual publication of the transactions. Under this arrangement the members of the society and the journal would be benefited; the former by receiving a medical journal gratis, and the latter by swelling its subscription list. 3. It is time that the medical colleges improve their method of teaching and elevate the standard of preliminary education. 4. Some means of protecting the people and the profession against quackery is urgently needed; perhaps the best plan would be to have a State Board of Examiners to examine candidates in those branches which are common to all schools, being supplemented by boards of therapeutists of the several schools to examine in those subjects on which the schools differ.

After a brief discussion upon the President's address the election of officers for the ensuing year was in order.

Dr. John P. Gray, of Utica, was elected President, and Dr. L. Connor, of Detroit, Vice-President. Dr. F. H. Davis, Secretary, held over.

The Association then adjourned till next year.

DEWITT CO. MEDICAL SOCIETY.

At the annual meeting of the Dewitt Co. Medical Society, the following preamble and resolutions were adopted, after a fair discussion for and against, by a vote 8 to 2:

Whereas, It has been clearly defined by the Judicial Council of the American Medical Association, which is the supreme medical court of the land—(See page 32, vol. 25, and page 41, vol. 20, transactions), that it is a violation of the Code of Ethics to bid or contract for the practice of corporations, county alms-houses, orphan asylums, etc.; therefore, be it

Resolved, By the Dewitt County Medical Society, that hereafter it will be considered a violation of the Code of Ethics of the American Medical Association for any member of this society to bid for the pauper practice in the poor-house, or the poor practice in the towns of this county.

Resolved, That hereafter it shall be considered a violation of the Code of Ethics, for any member of this society to enter into a contract with the Board of Supervisors to do the pauper practice or the poor practice of this county as an award of competitive bidding.

Resolved, That hereafter it shall be considered a violation of the Code of Ethics for any member of this society to enter into a contract to do medical, surgical or other practice for any corporate bodies, unless such bodies fix a reasonable salary for such services.

Resolved, That we appeal to the Board of Supervisors of this county, and earnestly request them to fix a reasonable salary for medical and surgical attendance of the paupers in the poor-house, and urge them to procure the best medical and surgical skill that the county affords, that will do the work for the salary.

Resolved, That it is the expression of this society, that such a course by the Board of Supervisors would be to the best interest of the poor, and a great saving of money to the

county, and would be alike honorable to supervisors and the doctors, and would forever settle the dispute between them.

Resolved, That any member of this society, that hereafter bids for the pauper practice of this county, or contracts to do such practice, upon any other terms than are herein specified, shall be declared guilty of violating the Code of Ethics of the American Medical Association, and the rules and regulations of this society, and on proof of guilt shall be expelled from the society, or supended for such length of time as the society may deem proper.

Resolved, That the foregoing preamble and resolutions be spread on the records of the society, and published in the Chicago Medical Journal and Examiner, the *Clinic*, of Cincinnati, and the newspapers of this county, and a copy sent to the Board of Supervisors.

Clinton, Ill., April 10th, 1877.

W. A. Tyree,
Secretary, *pro tem.*

THE IOWA STATE MEDICAL SOCIETY

Held its annual meeting at Cedar Rapids, June 6, and 7, 1877. About 150 members were present; valuable papers and discussions occupied the usual share of time. The following are the officers for the forthcoming year:

President, Dr. H. Ristine, Cedar Rapids; First vice-President, J. W. Gustine, Carroll; Second vice-President, L. P. Fitch, Charles City; Secretary, J. F. Kennedy, Des Moines; Assistant Secretary, G. O. Morgridge, West Liberty; Treasurer, G. R. Skinner, Cedar Rapids.

Committee of Arrangements: Dr. S. E. Robinson, West Union; Dr. W. H. Ward, Des Moines; Dr. Honnawalt, Des Moines; G. P. Morgridge, West Liberty; H. C. Huntsman, Oskaloosa.

Trustees: First District, H. T. Cleaver, Keokuk; Second District, H. M. Dean, Muscatine; Third District, B. Mc-

Clure, Dubuque; Fourth District, C. M. Hobby, Iowa City; Fifth District, D. McFarland, Keota; Sixth District, J. D. McClerry, Indianola.

The Southern Illinois Medical Association, met at Anna, Ill., June 20, at Usery Opera Hall, at 3 o'clock p. m. A large number were in attendance. Dr. L. Dyer, President, occupied the chair. The Association being called to order, prayer was offered by the Rev. K. W. Vansleve, of the Methodist Episcopal Church, after which, Dr. F. S. Dodds welcomed the Association with a very well-timed address, after which William Brown, Mayor of the city, offered the hospitality of the city, and thanked the Association for the honor conferred upon the city by selecting it as their place of meeting. Twenty-eight applications for membership were received and favorably acted upon. Several able and interesting papers on obstetrics were read and discussed, many members taking part. At the evening session an able and interesting public address on medical topics, by Dr. Barcly, of Marion, was delivered in the presence of a large and intelligent audience.

SOCIETY OF PHYSICIANS AND SURGEONS OF SOUTHWESTERN IOWA.

In pursuance of a call signed by the regular physicians in Adams, Adair, Clarke, Ringgold, Taylor and Union counties, Drs. Howe, Griggs, Scroggs, Beebe, Reynolds, Ran, T. Johnston; Ryno, Wilson, Given, Torrey, Vance and Christie met in the office of Drs. Christie and Torrey at Creston, Iowa, on the 1st day of June, 1876, for the purpose of organizing a medical society.

The constitution adopted named the society, THE SOCIETY OF PHYSICIANS AND SURGEONS OF SOUTHWESTERN IOWA.

Art. 3d provides that the members of this society shall consist of physicians and surgeons residing in the counties men-

tioned, who are authorized to practice medicine and surgery by any medical college accredited by the American Medical Association; and of such persons as are engaged in the regular practice of medicine, and are in good repute.

Art. 10th says the meeting of this society shall be quarterly and to be held on the first Tuesday of June, September, December and March of each year.

The following officers were elected for the ensuing year: J. B. Wilson, President; J. D. Reynolds, Vice President; W. H. Christie, Secretary; J. E. Howe, Treasurer.

Drs. J. P. Scroggs, R. C. Gregg, J. E. Howe, H. A. Given and L. S. Groves, Censors.

The President appointed committees to report at next meeting, which was to be held the first Tuesday in September.

Owing to an inclement state of the weather on the regular day of meeting, the society did not meet until Sept. 12.

The following papers were read:

Malarial Bronchitis, by Dr. Gregg, chairman of the committee on practice.

Drs. Christie, Reynolds, Howe and Wilson made remarks upon a continued type of malarial fevers, presenting in the latter stage meningeal complications.

Drs. Wilson and Christie had not seen this fatal complication in any cases where quinia had been properly administered in the onset of the fever.

Dr. Christie gave quinia largely early in the treatment, and brom. potass. with spts. nit. aether; later, dropped the quinia and continued potassic bromide combined with ergot and cannabis Ind., with but little advantage. He used also diluted hydrochloric acid and chlorate of potash.

Dr. Wilson used large doses of quinia early, and where there was a tendency to brain trouble, bromide of potash in large quantity.

Dr. Christie reported a paper upon corporeal endometretis.

Dr. Torrey, one upon cholera infantum.

Dr. Reynolds, as one of a committee on materia medica, reported his manner of using verat. viride, aconite and gelseminum.

Dr. Nance, as the other member of the committee, read a paper upon rational therapeutics.

Dr. Given, as committee upon obstetrics, read a paper upon labor, and reported a case where decapitation was necessary to delivery.

It was an arm presentation, and a midwife had seized the arm and pulled the child down.

Dr. Wilson having been appointed essaysist at the other meeting, read a paper upon "rational and progressive medicine."

The December meeting was held at Creston.

The following papers were read:

Drs. Beebe and Christie, as committee, reported upon Surgery. Dr. B. reported a case of strangulated hernia which had been mistaken for an abscess, and poulticed with all sorts of fomentations. He was finally called; operated, patient died. Dr. Christie reported on fractures and hydrocele, and the methods he adopted in their treatment.

Dr. Horne, as committee upon practice, reported upon autumnal fevers.

Dr. Nance read a paper as essayist upon originality in medicine.

Dr. J. B. Wilson read a paper upon syphilis. The report did not endorse the dualistic theory, and the treatment was anti-mercurial. Iod. of potassium was relied upon in large doses.

Dr. Nance offered the following resolution:

Resolved, That we as a society recognize the CHICAGO MEDICAL JOURNAL AND EXAMINER as the medical exponent of the society, and that the President of the society appoint a committee, of whom the Secretary shall be one, which shall refer any meritorious reports, essays or papers to the above journal for publication.

The next meeting of the society was appointed at Creston.

Dr. Spooner reported a paper upon obstetrics.

Dr. Given reported a paper upon nervous diseases.

Drs. Torrey and Gregg reported upon materia medica.

Dr. Nance reported on diphtheria.

Although there were not many papers read, yet the character of the papers and reports were unusually interesting, and brought out reports of cases under the different heads.

The next meeting is to be held in Mt. Ayr, on the first Tuesday in June, 1877.

THE KANSAS MEDICAL SOCIETY

met in Lawrence, May 9th, and was called to order by the President, Dr. H. S. Roberts, of Manhattan; Dr. D. C. Jones, of Topeka, was elected Secretary *pro tem.*

The reading of the minutes of the last annual meeting was dispensed with, and the minutes, as published, were adopted.

The President read his annual address, which was referred to the committee on publication.

A motion to so amend the by-laws as to require graduation as a qualification for membership, was offered and adopted.

Dr. Mottram, of Lawrence, made a report from the committee on surgery, and Dr. Shoyer, of Leavenworth, from the committee on obstetrics. The reports were referred to the committee on publication.

Dr. Schenck, of Osage City, reported on septic diseases. The report was very favorably received, discussed and ordered published.

Second Day.

This Society convened again this morning at 8 o'clock, and was called to order by the President. About forty members were present.

Dr. Todd, of Kansas City, delivered a lecture on Obstetrics, after which the various reports were heard. The committee on necrology on the death of Dr. J. S. Redfield, of Fort Scott. Report on typhoid fever, by Dr. Van Eman, of Tonganoxie; on syphilis, by Dr. Cochran, of Atchison. Vol-

untary papers, by Dr. Halley, of Kansas City; Dr. Hanawalt, of Arvonia; Dr. Morris, of Lawrence; and Dr. Lawrence, of Emporia, and all appropriately referred.

The election of officers for the ensuing year resulted as follows:

President, W. L. Schenck, of Osage City; 1st Vice-President, C. C. Furley, of Wichita; 2d Vice-President, J. H. Stuart, of Lawrence; Secretary, F. D. Moss, of Lawrence; Assistant Secretary, V. Biart, of Leavenworth; Treasurer, W. W. Cochran, of Atchison; Censors, H. O. Hanawalt, Arvonia; H. S. Roberts, Manhattan; G. R. Baldwin, Fort Scott; G. L. Sears, Atchison; P. O'Brien, Topeka.

The Society then adjourned to meet at Topeka on the second Wednesday of May, 1878.

Medical News and Items.

SALE *vs.* THE LOUISVILLE MEDICAL COLLEGE.—Our readers, who have noticed a report of this suit in the June number of this periodical, may also hear "*alteram partem.*" Here is their account, as published over E. S. Galliard's signature, in the Richmond and Louisville *Medical Journal*:

"In September last, Mr. Sale, a medical student and the plaintiff in this suit, entered the college mentioned. He paid his fees. A few weeks subsequently he was offered (with others) free tuition in a Louisville Medical Institution. This offer was a part of the sworn testimony of the plaintiff. He accepted it and requested a return of his money. This request was of course not granted. He then asked for his tickets. He was told that this College never gave its tickets (the evidence of attendance upon a course of lectures) until the last month of the course. Had the tickets been given there would have been no suit; but they were withheld, and the suit invited. The plea in this suit was failure to comply with promises made. In the garbled version of the magistrate's decision published in the "*Courier-Journal*," and sent to the Medical Press everywhere, and to the alumni of the Louisville Medical College, it is admitted that this plea could not be, and had not been, sustained by the evidence. The so-called "judgment" of the magistrate was given on the ground that the present Faculty were not legally elected.

"The Book of Minutes of the Proceedings of the Board of Trustees shows that the members of the Faculty were not only legally elected by the Present Board, but that one of the last acts of the old Board was to elect them (with one exception) before adjournment. It may be asked why was not this book produced and such a "judgment" prevented. The answer is simple; it was in possession of the persecuted Secretary of the Board of Trustees, Dr. B. M. Wible, who was ill and soon after died, and was found after his death, and after the so-

called "judgment" had been "rendered," and copies of it forced into a daily paper (which never publishes the petty business of a magistrate's court), and actively disseminated for purposes too evident to require indication."

At a meeting of the Board of Regents, Kentucky Infirmary for Women and Children, held May 15, 1877, the following persons were elected to serve for the ensuing year:

MEDICAL STAFF.

Dr. David Cummins, deformities and general surgery; Dr. Geo. W. Griffiths, diseases peculiar to women and children; Dr. Richard C. Brandeis, diseases eye, ear and throat; Dr. Ely McClellan, pelvic surgery; Dr. Samuel Brandeis, surgeon accoucheur; Dr. James McEvoy, clinical assistant.

DENTAL STAFF.

B. Oscar Doyle, D. D. S.; W. T. Redman, D. D. S., M. D.; Ch. E. Dunn, D. D. S.; W. T. Goddard, D. D. S.; C. G. Edwards, D. D. S.

ADDITIONAL HONORARY MEMBERS BOARD REGENTS.

Prof. W. H. Byford, Chicago, Ill.; Dr. Washington Atlee, Philadelphia, Pa.; Dr. J. Marion Sims, New York.

The first annual meeting of the American Dermatological Association will be held at Niagara Falls on the fourth day of September next. The titles of all papers to be read at any annual session shall be forwarded to the Secretary, not later than one month before the first day of the session.

Mortality in the City of Chicago during the five weeks, from May 19 to June 23, 1877. Total number of deaths, 620; males, 343; females, 277; under one year, 164. Principal causes of death: accidents, 22; apoplexy, 14; bronchitis, 12; convulsions, 68; diphtheria, 19; enteritis, 19; cholera infantum, 8; diseases of heart, 9; kidneys, 2; pleurisy, 4; pneumonia, 26; phthisis, 63; measles, 10; scarlet fever, 96; typhoid fever, 9; meningitis, 22.

EDITORIAL NOTE.

It is scarcely necessary to offer an apology to our many readers, for the exclusion of much from our columns that we trust may be presented hereafter. The full report of the transactions of the AMERICAN MEDICAL ASSOCIATION which we publish in this number, has necessitated the surrender of all available space, even including the additional pages which enlarge this number of the JOURNAL AND EXAMINER.

Since the date of adjournment of the Association left but a brief time for the discharge of the duty which we felt resting upon us, in view of the fact that the Association had met in Chicago, our work has been necessarily hurried. If any errors have been committed, either in names or in expressions, we trust that the haste requisite for the preparation of such an extended report, may be considered in extenuation.

While congratulating therefore our readers upon the fullness with which we have produced an abstract of the proceedings of the Association—proceedings which certainly contain much that is of value and interest—we take pleasure in expressing our thanks to the several gentlemen who have made this effort possible for us, by their kindly assistance. Their names will be found in connection with the report of the section to which each was assigned.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETIES.—Mondays, July 2 and 16; Chicago Medical Society, regular meeting.

Mondays, July 9 and 23; Chicago Society of Physicians and Surgeons.

Friday, July 13; State Microscopical Society of Illinois. Regular meeting at the Academy of Sciences.

CLINICS.—Saturdays at Rush College, 2 P. M. Surgical, Prof. Gunn.

THE

Chicago Medical Journal

AND

EXAMINER.

Vol. XXXV.—AUGUST, 1877.—No. 2.

Original Communications.

REMOVAL OF HARDENED SECRETIONS FROM THE NASAL PASSAGES.

By Thos. F. Rumbold, M. D., St. Louis, Mo.

For those patients in whom the muco-purulent secretions have become so hardened, and adhere so tenaciously to the mucous membranes of the superior portions of the nasal and pharyngo-nasal cavities, that their removal cannot be accomplished by force of water inhaled from the palm of the hand, such other means must be resorted to as possess the required force.

There are three indications that must be fulfilled by the means employed to accomplish the removal of these hardened secretions, and cleansing the surface covered by them.

The first of these indications, is, that of itself, the means should cause no irritation.

All who have had even a few years experience in the treatment of this most tenacious disease, will see the necessity of making this indication a prominent one; one that is to measure not only the value of the means for making applications to these highly sensitive surfaces, but to measure the value of

the medicaments also that are to be applied to them. It must be constantly kept in mind, that increase of irritation and decrease of chronic catarrhal inflammation can never go on together.

The second indication: The means employed should throw the irrigating fluid upon every portion of the diseased surfaces.

The third: Force enough should be employed to remove the secretions from their places of lodgment.

It is almost needless to say, that whatever means may have been recommended, which will not fulfill these three important and indispensable indications should be discarded.

In discussing the value of the means employed, I will take such only of them as have been recommended by high authority during the last few years.

The Posterior Nares Syringe has been recommended and employed for this purpose, but even when patients have learned to handle this instrument carefully, it so frequently causes, by its application behind the soft palate, so much irritation, that they soon refuse to use it. Besides this, the throat of those patients whose nasal cavities most require to be cleansed by it, are always exceedingly sensitive to all such appliances, and because of the elevation and compression of the velum palati to the posterior wall of the pharynx, occasioned by this sensitiveness, the curved extremity of the instrument is pressed—in the endeavor to insinuate it behind the velum—against this wall with so much force that it soon occasions a pharyngitis even if none had existed before its applications, thus, not only maintaining, but increasing any inflammation that may exist in this region. Not unfrequently, in cases of severe pharyngitis, the application of the instrument is followed by a show of blood in the expectorations, which may continue for fifteen or twenty minutes afterwards. It is preposterous to expect that a naso-pharyngitis can be eradicated under such circumstances. It will require at least two weeks careful treatment to overcome the injury done by one such application.

One of the strongest advocates of this method of cleansing the nasal cavities, a specialist and a resident of an Eastern

city, applied this instrument daily for three weeks to a patient, who was himself a physician, each application caused a hemorrhage from the pharyngo-nasal cavity. At first the hemorrages were slight, but they continued to increase, until at the end of three weeks, as much as a half teaspoonful of blood followed the withdrawal of the instrument, at the same time deglutition was so painful as to necessitate a soft diet. The patient was treated for a nasal catarrh, and a deafness in the left ear, but while the secretions in the nostrils were much lessened in quantity, the hearing was rapidly decreased. The practitioner informed his patient that the hemorrhages occasioned by the application of the instrument were beneficial to the mucous membranes, on account of their congested condition, but said nothing about the manifest injury done to the hearing that was occasioned by bruising the sensitive membranes in the neighborhood of the Eustachian tubes.

On account of the irritation caused by the application of this instrument, its use should be discontinued.

The apparatus that is most commonly resorted to, in such cases, is the Weber Nasal Douche. On account of the frequency of the employment of this means, both by the professional and non-professional, I will discuss its merits and demerits at some length, while examining as to whether it can or cannot fill the three indications that I have named.

Dr. Thudichum in his paper published in the London *Lancet* 1864, says: "All difficulties are removed at one stroke by the discovery of Prof. Weber, of Halle, [Germany,] that when one side of the nasal cavity is entirely filled through one nostril with fluid by hydrostatic pressure, while the patient is breathing through the mouth, the soft palate completely closes the channel, and does not permit any fluid to pass into the pharynx, while the fluid easily passes into the other cavity, mostly around and over the posterior edge of the septum narium, in some persons also the frontal sinuses, and escapes from the other open nostril, *after having touched every part of the first half of the cavity of the nose*,* and a great part certainly of the lower and median canal of the second half. By means of the

**The italics are mine. R.*

application of this principle to the treatment of diseases of the nose, it is possible easily and frequently to wash the nasal cavity, to disinfect and deodorize it, to remove the sordes which accumulate so easily in it, and to apply to its surface a great number of beneficial medicinal substances, so as to prevent acute affections from extending, and to incline them towards a speedy recovery; to stop hemorrhages, allay irritations, and subdue in a remarkable manner chronic affections of the Schneiderian membrane, *so as to re-establish perfectly healthy surface and normal condition of the organ of smell.*"*

There is an uncommon amount of confidence expressed in the very forcible language just given. It is this confident tone, in which a seeming guarantee of a cure is given, that raised high the hopes of both the practitioner and the patient. It is not questioned but that this douche fulfills the first indication named, *i. e.*, it causes no irritation by its application. This is one of the good qualities that its friends have urged in its favor; it is not uncommon for them to apply to it the adage, which is so frequently applied to homeopathic remedies,namely; that if it can do no good, surely, by its simple action, it can do no harm. Whether the latter conclusion is true or not we shall be better able to see as we go along.

That Dr. Thudichum made a very great mistake when he said that the irrigating fluid touched every part of the nasal cavity—the second indication—may be proved most conclusively by the following experiment: First, cover the mucous membranes of both nasal cavities of the person upon whom the experiment is to be tried, with finely powdered starch, by insufflation, both in front and from behind the velum palati; next, incline the head forward, as recommended by Thudichum, and pass a weak solution of iodine and iodide of potassium through the nasal passages by means of the douche. The iodine solution will either discolor or wash away all of the starch within its reach; the discoloration will be the characteristic blue of iodide of starch. The effect of the washing may be seen by reflecting natural light upon a pharyngeal mirror, placed under and behind the pendant soft palate, and by inspection through the anterior nares. The washed or dis-

**The italics are mine. R.*

colored portion of the mucous membrane, and the remaining portion covered with white starch, will show that the greatest height that the iodine solution reached in the antero-superior portion of the cavity, was only a little above the anterior extremity of the middle turbinated process, (b. Fig. 1.) and that

FIG 1.

Antero-posterior section of the head and face, showing the turbinated processes *a*, *b*, *c*; *d*, *d*, the location of the encrusted secretions in the highest portion of the nasal cavity; *e*, the highest the water attains in the nasal cavity while using the Weber douche, with the head inclined forward. The dotted line indicates the position of the posterior border of the septum nasi.

only below a line drawn from this point to the lower surface of the posterior nasal opening (e) is washed, and that all of that portion of the surface above and posterior to that line (d, d,) is not washed, the white powdered starch remaining plainly in view. In other words; the solution, flowing into the nasal cavity, rises until it reaches a level that is on a horizontal line (e) with the inferior surface of the posterior nasal opening of the side in which the liquid is introduced, then, instead of rising higher, upon the introduction of more fluid, it will flow around the posterior border of the septum narium, over that portion of the soft palate which joins the hard palate into the other nasal opening, and thence out through that nasal passage.

Thus, it is seen, that instead of fulfilling the second indication, *i. e.*, "touching every part" of this cavity, as asserted by Thudichum, but a little more than the lower half of it is touched, and it is that half, too, which is very rarely incrusted or requiring treatment; the upper half, the region whence all of the secretions flow that find lodgment in the inferior

portion of the passage, remains untouched, and hence uncleansed.

In the other nasal passage, the floor only, not the middle meatus also, as Dr. Thudichum has made us believe, will be washed by the liquid as it escapes.

It is a mistake to suppose that the elevation of the soft palate against the posterior wall of the pharynx will cause the fluid to rise higher in the nasal cavity than the line indicated, because the liquid has still the same avenue for its escape, namely, through the other posterior nasal opening; nor is the closure of the communication downward into the pharynx, a provision by nature,as asserted by the advocates of this method, to allow a more rapid flow of the current into the cavity; nor, indeed, can the nasal fossæ be filled by the closure of the other nostril, because the effect of both of these acts will be to cause the liquid to rise higher, but before the cavity is filled a part of the fluid will flow upon the soft palate, and its presence on this sensitive organ will occasion involuntary deglutition, which will be instantly followed by a sense of strangulation, because the liquid which gave rise to this sensation is not swallowed, but falls down into the open larynx, then a choking sensation of a severe character follows. Even if more of the surface is touched by this forced irrigation, the time during which the liquid is in contact with the higher portion of the cavity is so short that it cannot be effective.

Now, where are the hopes that Dr. Thudichum raised, when he said, that by this means it is possible "to re-establish a perfectly healthy surface, and a normal condition of the organ of smell."

It will appear manifest to all who have studied the anatomy of this portion of the head, that it is not the elevation of the soft palate, nor the closure of the passage into the fauces, nor the closing of both nostrils, but the position of the head of the patient that governs the amount of surface touched by the water. The nasal cavity, while the head is erect, will not retain a liquid any better than a tea cup while lying on its side, but the more that the head is inclined forward, until the posterior border of the septum nasi (dotted curved line) is placed

in a horizontal position, the greater will be the quantity of fluid contained in the cavity. But should the douche be employed while the head is in this position, a far more serious inflammation will be set up in other cavities of the head than the one that is being treated, for a part of the irrigating liquid will pass into the antrum of Highmore and a part of it into the frontal sinus, through openings under the middle and superior turbinated processes.

Even if the irrigating fluid did touch every part of the nasal cavity, still it does not fill the third indication, for the stream, as it *must* flow gently, or else involuntary deglutition will take place, does not have force enough to remove hardened secretions, as they are remarkable for the firmness with which they adhere to the place of formation, *i. e.*, in the neighborhood of the superior and middle turbinated processes. Even if two or three gallons of fluid were to be employed—which quantity I have used on several occasions—the time occupied in its passage is not long enough to soften and remove them, yet, by the time that this quantity of liquid ran through the passages, of my patients, the healthy mucous membranes absorbed so much of it as to cause occlusion of the passages to such a degree that they were compelled to breathe through the mouth. After several such applications, such a degree of tenderness was produced, that the least exposure to a cold atmosphere brought on an attack of acute catarrh of portions of the cavity heretofore unaffected.

Although I believe that I have plainly demonstrated that the Weber Douche is inefficient, and might consider that this is a sufficient reason for discontinuing its use, yet I will show that in addition to its inefficiency, it has an injurious effect upon every patient that employs it, by its insidiously spreading the chronic inflammation upon unaffected parts, and that upon some its injurious efforts manifest themselves suddenly and severely.

Before instancing the cases in which the injuries were sudden and severe in character, I must say that the number of persons thus affected, is remarkably small in proportion to the large number who have used and are daily using this method.

There certainly is a very *large* number of persons who are employing this means for cleaning their nasal passages; as fast as one set discontinue its use, after finding out that it does not fulfill their expectations, another set commence it, and yet the cases of acute inflammation of the cavities connected with the nasal passages, that arise from it, *are not* at all frequent. I am now treating a patient who commenced to use this douche in March, 1871, washing his nostrils by it from one to three times, and sometimes as high as four and five times daily; he very rarely passed a day without using it, making in all, certainly, about three thousand applications. Two times during this period, he experienced painful sensations in his ears; four or five times he experienced a painful sensation in his left cheek, showing that the left antrum of Highmore was injuriously affected by it.

It is seldom that I treat a catarrhal patient who has not, in his endeavor to rid himself of this disease, used this douche a great many times, yet it is seldom that complaint is entered against it, on account of any injury received from it, that is, one that the patient or his physician would call an injury; I mean such an injury that would develop itself suddenly, or show itself by symptoms of a marked character; so small, indeed, is the number of cases whose ears and sinuses receive injury of this character, that, in my opinion, were the method as effective as claimed by Dr. Thudichum, it should not be discontinued on account of its effect upon these cases.

It is not because that this method, now and then lights up an acute inflammation in comparatively few cases out of the thousands who use it daily, almost without instruction or warning, that I would condemn it, but it is, on account of the injury that the water does to the healthy surfaces without, at the same time, benefiting the unhealthy or catarrhal surfaces.

The application of water or of any fluid, except mucus, to the nasal cavities, is always productive of more or less injury to its healthy mucous membranes, but this injury is more than compensated, if, by the application, vitiated and irritating secretions are removed, which could not have been done without its

aid; but if these secretions are not removed during its application, then the injury done by the water to the healthy parts is not compensated for by any benefit done to the inflamed parts, but on the contrary, the condition of the patient is gradually, almost imperceptibly, made worse by the healthy mucous membrane being prepared, by the frequent absorption of water, so that it more readily takes on a catarrhal inflammation. This is the injury that should deter every one from employing this means. I am quite certain that fully ninety-five per cent. of my patients, who have used this douche, have not only maintained their catarrh by it, but by it caused the chronic inflammation to extend to other parts of the cavity, as well as to other cavities.

It will be seen that what I have said about its liability to set up a chronic inflammation in other cavities, is almost in accordance with Dr. Roosa's experience, given in his work on the ear. He says: "As early as 1869, I had found that the nasal douche was sometimes a troublesome and dangerous appliance, and I added a note to indicate this in my translation of Von Troeltsch on the ear, [second edition, page 369,] but I was not fully convinced that it would readily cause acute aural inflammation until the following case occurred in my practice. * * * Besides, as it is believed by many otologists, it is possible that the douche sets up a chronic inflammation of the tympanic cavity, without any acute stage, and thus the true cause of an insidious chronic catarrh is passed over and supposed to be an advance of the naso-pharyngeal inflammation. Of course it is not believed by the author that the use of the nasal douche will *necessarily* cause aural disease, but that it is a dangerous means of treatment, which should be carefully watched by the practitioner."*

Although Dr. L. Turnbull is a strong advocate of this method, yet it is evident that the facts which he records in his work on the ear are also in agreement with what I have said. He says: "There are some important cautions to be observed: first, the fluid must be of the temperature of the body, [about 96°]; second, the patient must breathe gently with the mouth

**Dr. St. John Roosa on the Ear*, 1873, *pp.* 291-295.

open; and lastly, must not swallow, else the fluid will pass into the middle ear and cause the following results, well told by a patient in the following letter from Frederica, Delaware:

'My Dear Sir:—I find on using the nasal douche as recommended by you, that it affects me somewhat unpleasantly. I find no difficulty in passing the water as directed from one nostril to the other, or back into the throat. On passing the water into the throat the Eustachian tubes apparently are also filled, and give the same sensation I have experienced, when a boy, in swimming, and what we used to call "bubbles in the ear." I cannot free my head of the water taken in for some four or five hours after using the douche. I then feel as if I had taken cold. My ears feel sore, pressing the tips of the fingers into the external ear causes a dull pain, apparently about the drum of the ear. This passes off in about twelve hours. . . . I am much more deaf than usual for some hours after using the douche. Yours respectfully,

J. R. H.'

"To this form of medication there are some other objections which have been made by Professors Roosa and Knapp; viz., that otitis media may supervene, and perforation of the membrana tympani be caused by excessive sneezing, the result of using the douche; but no such results have followed the extensive use of this most valuable means employed by the author in hundreds of cases, both of ear diseases and of ozæna with or without deafness."*

Instead of its being a most valuable means, as claimed by Dr. L. Turnbull, the experiment with the powdered starch and iodine solution demonstrates that it is really valueless, except so far that it makes it possible for those patients who suffer from profuse catarrh to breathe with some degree of comfort, by its removing the secretions that occlude the inferior portions of their nasal passages. It is because of this relief that patients express themselves as pleased with the method. Besides this, the effect of the warm fluid is always pleasant to those patients, even if the whole of the diseased surfaces are

*A Clinical Manual of the Diseases of the Ear, by Laurance Turnbull, M. D., 1872.

not bathed by it. I have noticed for years that the expressions of benefit or relief almost invariably come from those patients whose nasal cavities were plugged by inspissated secretions, and who suffer in consequence of the heat arising from the inflammation, and not from those whose catarrhal complaint allows a free passage for breathing, except at such times as they suffer from an unusual amount of irritation occasioned by a recent cold.

It is very common for physicians, in reporting the favorable result of the application of this douche in a very bad case, to say, as Dr. Thudichum said: "It is really surprising what an amount of sordes will sometimes be removed from the nose by this rinsing process," or "that great masses of hardened, offensive secretions are washed out, and that this relieved the patient of an ever present weight in the head." Such expressions as these lead the reader of the report, as it led me, to presume that if this method of treatment will produce so marked, so beneficial a result upon so bad a case, it will certainly cure a case that is but slightly affected. But the fact is, so far as relief is concerned, the very reverse of this is true; the cases of profuse catarrh are relieved, but not cured, and the slight cases are injured by it, without experiencing any relief.

That this method will remove the secretions that are situated in the inferior and anterior portions of the cavity, (a. b. Fig. 1.) is not doubted, but this is all that it will do, its usefulness ends here. This removal has the effect to give the patient breathing room only, the disease is not even checked. The larger half of the treatment that is to cure the case, is to remove, completely,the secretions from every portion of the cavity, this, the douche cannot do. The portions of the cavity that are the most important to be cleansed, are the superior portions, (d. d. Fig.1) because the disease originates in this locality, consequently there always is secretion on these surfaces. There are many cases, severe ones too, in whom the lower portion of the passages is entirely clean and healthy, which requires no applications of water, but will be injured by the absorption of the water, if it is applied every day.

I will now relate a part of my experience in the employment

of this douche, that I may be enabled to give the history of the circumstances by which I discovered the inadequacy of its applications. Following this, I will give brief histories of those cases who were injured by its applications.

In January, 1863, while located in the U. S. Gen. Hospital, at Jefferson Barracks, Mo., I had two patients under my care who were suffering from nasal catarrh. I directed them to wash out their nasal passages with various solutions, by means of Matison's soft rubber syringe. Other soldiers, noticing the applications, requested to be treated for a similar complaint. During this year and the following one, I treated, or attempted to treat, in all, sixty-eight patients.

The failure to do more than maintain a passage through the nostrils, added to failures that occurred years before, on several cases similarly affected, induced me, in January, 1865, to open a correspondence with a class-mate in Boston, who had recently visited the hospitals in London and Paris. From him I learned of Dr. J. L. W. Thudichum's article on a "New Mode of Treating Diseases of the Cavities of the Nose," which appeared in the London *Lancet*, of November and December, 1864.

These articles contained a full description of the Weber Nasal Douche, and gave a list of remedies to be used. Their tone was so confident and so assuring, that I was ready to conclude, with my friend, that at last we had the means of combating this complaint, which had heretofore baffled all endeavors. At the time of the reception of the two numbers of the *Lancet*, I had six cases of nasal catarrh in my ward, so certain was I of curing them by this method, that I wished that I had sixty cases instead of six.

The patients, at first, were much pleased with the effects of the washing, and I could see that the prominent symptoms were much abated.

In a few weeks, I noticed that it was those patients only, whose nostrils were very much filled by sordes during the night that continued to give the most favorable reports. About four months after I commenced to use this mode of treatment, one patient, on whom the douche had been used about three

weeks, refused to have it applied because, as he claimed, it caused intense pain in the left side of his face, in the upper jaw and also in his forehead. Soon after this, another patient informed me that it had the same effect on him, and, moreover, that the secretions from his nose and throat were more profuse than at any time during his life, his catarrh being but a slight one when I commenced to douche him. The first patient that was injured by the washing had an inflammation of the antrum of Highmore on the left side, he insisted that the douche caused it, but I did not think so at the time, because, on examination of his teeth, I found that the second upper molar, whose fang sometimes penetrates into the antrum, was decayed. I extracted this tooth and treated the diseased antrum through the opening made by the tooth. The case, so far as the diseased sinus was concerned, recovered in about five weeks.

As I considered that the decayed tooth originated inflammation of the antrum, I recommended that the patient should use the douche again. He did so, and had four applications, when a very severe inflammation of the antrum again ensued, from this he recovered after about two months close attention. The second case in whom the antrum was involved, did not require any special treatment; I merely let him alone; and in a few weeks he too, recovered, his catarrhal symptoms also improved slightly upon non-interference.

I discovered about this time that while the douche had a good effect on those patients whose catarrh was very profuse, it proved an injury to all cases in whom the secretions were always in a fluid condition and were but small in quantity.

In order to ascertain the reason of this peculiarity, I made an examination, post mortem, of a patient who had died suddenly of a paralysis: he had a very profuse catarrh, and had been treated by the douche about three months. The applications were made daily for ten days, then at such times as the secretions demanded removal, which was about every other day. The treatments gave so much relief when first employed, that he expressed himself as being quite certain that they would ultimately cure him. He had frequently stated that he

had never used anything that had so good an effect on him as the douche of warm salt water. I was astonished to find, during the post mortem examination, that the posterior portion of the superior half of the nasal cavities (d, d, Fig. 1) were incrusted with old and offensive secretions, although the passages had been washed out, in accordance with his request, about six hours before he died, and that he had been regularly douched from the comencement of the treatment.

Having made an antero-posterior section of the head, I made a large opening in the septum nasi and placed over this perforation, a piece of window glass large enough to close the hole, then I inclined the head forward, as recommended by Thudichum, inserted the rubber tube into the nostril and caused water to flow into the cavity, in the same manner that I had done in the treatment of my cases. Through the glass septum, I saw that the water was maintained in the cavity at that height only that was on a level (e, Fig. 1) with the lower border of the posterior nasal opening of the side douched, therefore the irrigating fluid could not wash the superior and posterior portions of the nasal and pharyngo-nasal cavities (d, d, Fig 1); it could wash the inferior and anterior portions only a, b, Fig. 1). This experiment at once solved the mystery of this form of douche being beneficial in cases of profuse catarrh, but never checking entirely the formation of the purulent secretions either in severe cases, or in mild ones. I had then used the Weber Douche eight months, (Sept. 1865 making from five to twenty applications of it every day, and was satisfied that it had gained its reputation from the relief that it had afforded to patients who were suffering with profuse secretions and large incrustations.

As the medical journals continued to praise this method, and as it was the best means known for alleviating bad cases of this disease, I continued its employment until June, 1866, at which time I had two patients (then in private practice) whom I injured by its use. One of them suffered so severely from otitis media that I perforated the membrana tympani; the other had an inflammation of the antrum of Highmore. At this time, partly at the suggestion of a patient, I began to

recommend, instead of the douche, the inhalation of water from the palm of the hand, while the head was inclined forward, as recommended in a previous article.*

In September, 1868, I drew the attention of the members of the St. Louis Med. Society to the deficiencies of this douche, by drawings on the blackboard, demonstrating the manner in which the irrigating fluid failed to reach the superior portion of the nasal cavity, and at the same time mentioned two cases which I had treated that year, whose ears were injured by means of this apparatus. In both of those cases a perforation of the membrana tympani had taken place; one of the patients was seriously ill for a period of four weeks from an inflammation of the mucous membrane of the mastoid cells.

In 1869, I treated two cases whose ears were affected injuriously by the douche, on one of whom the mastoid process was greatly swollen, which was relieved by a free incision.

In 1870, I had five cases who were injured by this apparatus. I took the pains to inquire whether or not they had informed the physician who had recommended the douche, of the bad effects of the treatment, and learn from them that they had not done so.

In 1871, I had only one case that was injured by the douche. He had been using the apparatus for about four years, and had repeatedly experienced sensations as if the water had passed in both ears. He had noticed that the solution passed into the ears at such times as he had a cold in the head. He informed me that he knew of several of his acquaintances who were affected in the same way, "but," he said, "each of us had ear-ache when we were young, and I thought that the ear-ache had made our ears weak."

In 1872, I treated four cases from injuries done by the douche. Three of those cases were but slightly affected in the ears; two of the three had otorrhea when young, the third one had no affection of the ear except from the use of the douche. The fourth case was affected in the left antrum of Highmore, a molar tooth, which was partially decayed, was extracted to afford an opportunity to treat the cavity.

**Chicago Med. Jour. and Examiner, vol. 34, page 385.*

In 1873, I had two cases, both of whom had otitis media, but neither very severe. No history of previous complaint of otorrhea, but both were quite defective in their hearing before using the douche.

In 1874, I had six cases who had otitis media from the use of the douche, and two cases in which the antra were affected injuriously by this apparatus. All of the cases were mild ones.

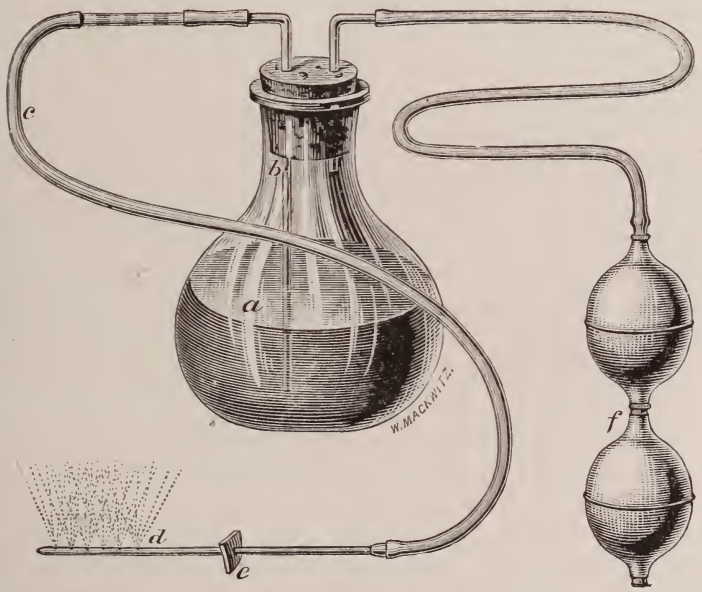
In 1875, I had three cases of otitis media from the use of the douche; in one of these cases, which was severe, there is a history of a previous affection of the ear. The hearing of all of the cases was quite defective.

In 1876, I had seven cases of otitis media, and one of inflammation of the antrum of Highmore,and one of inflammation of the frontal sinus. The hearing of the seven ear cases was defective before the use of the douche, but much more so after it had caused inflammation of the middle ear. In two cases I perforated the membrana tympani; in one of those the perforation closed in four days, in the other in about three months. In the case of the inflamed antrum, I had a second molar, which was decayed, extracted to allow the escape of the pus. The case with the inflamed frontal sinus was very severe, the lower portion of the forehead was greatly swollen, and very red. The pain was so great as to prevent sleep for three days.

I have noticed a fact, connected with the history of nearly every one of my cases, which to a certain extent mitigates the blame that is attached to this method, that is, to its exciting acute inflammation in distant parts. The fact alluded to is, that their ears and antra were in a more or less inflamed condition before the application of the douche. In all ear cases, even if there had been evidences of a diseased condition—except in those who suffered from perforation of the membrana tympani—if they desisted from performing the act of deglutition, thus preventing the entrance of water into the middle ear, the employment of the douche did not produce acute inflammation. The ears of those patients whose membrana tympana were perforated, were unaffected by the douche, even

if the act of swallowing was performed while the water was in the pharyngo-nasal cavity. I think that it is barely possible for water to enter a middle ear, if its membrana tympani is perforated. I have not seen nor heard of a case in which it did do so. I have also noticed that those patients whose ears had not manifested any symptoms of a diseased condition previous to the use of the douche, did not volunteer complaints of its bad effects, even when the water did enter their ears. But, from my observations, I should expect that in *every* patient whose ears were affected by an *acute* inflammation—except in those in whom the membrana tympani were perforated—

FIG. 2.



Catheter Nasal Douche: *a*, container; *b*, metal tube for passage of the liquid, the *letter* is placed beside a small aperture in the side of this tube, allows the entrance of air; *c*, hose composed of rubber and glass tubing; *d*, catheter with foramina, for the escape of air and liquid; *e*, triangular piece of soft rubber; *f*, India rubber air bulbs used to force air into the container *a*.

all of the acute symptoms would be suddenly aggravated, if they performed the act of deglutition while employing the douche.

Even if it were possible to determine those patients who should not use this method of cleansing the nasal passages,

this fact ought not to be urged against its employment, if it had a salutary effect on all of those cases whose ears and antra were uninjured by it; but when it proves a serious injury to some patients, and when it signally fails, in every patient, to reach the locality in which the disease *originates*, thus returning no compensation for the injury that it must do to *uninflamed membranes, by their absorbing water*, then, most certainly, it should be discontinued.

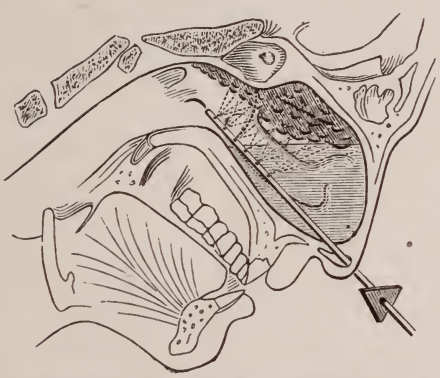
After observing the inadequacy of the Weber Nasal Douche, I devised an apparatus in June, 1867, which I have called the Catheter Nasal Douche, (Fig. 2). It throws a shower or coarse spray of liquid from the floor of the nostril upward, reaching every portion of the irregular surface of the cavity, making perfectly efficient and direct local application. When warm salt water is used, the only sensation it occasions, is that of tickling, which is never objected to by the patient.

The apparatus consists of the following parts: The vessel that contains the cleansing fluid is a flask-shaped bottle (a, Fig. 2) of a pint or a pint and a half capacity; into the soft rubber stopper of this bottle are inserted two metallic tubes, whose outer extremities are bent at right angles, and turned in oppoposite directions. One of these tubes is short, but long enough to pass through the stopper, and has attached to its outer extremity a pair of India rubber air bulbs (f); the other metal tube (b) almost reaches the bottom of the container. Attached to the outer extremity of this tube is a hose (c), about twelve inches long, a part of which consists of soft rubber and a part of glass tubing, the latter section of tubing is about three inches long, and is inserted in the first third of the hose. To the outer extremity of the hose is fastened a No. 5, or No. 6, flexible catheter (d) six inches long, at the further end of which are made five small openings in a line with its axis, three-eighths of an inch apart. The free extremity of the catheter is closed. A perforated triangular plate (e) of soft rubber, with one inch borders, is slipped on the catheter about three and a half inches from the closed extremity. This plate will prevent the liquid from flowing on the operator's hand, and at the same time it will serve as a guide both in regard to the direction of

the stream and the distance that the instrument is inserted into the nostril (Fig 3).

The metal tube, whose lower extremity dips into the fluid in

FIG. 3.



Antero-posterior section of head showing the introduction of the catheter and the direction of the coarse spray.

the container, has a small aperture in its side, just under the rubber stopper. This aperture is to allow air to enter during the passage of the liquid up the tube, the effect of which is to cause it to contain beads of air and fluid alternately. These beads of air and liquid should be equal in size, about one-half of an inch long. When the air and solution escape from the opening in the catheter (d), it will resemble a coarse spray. The relative size of the beads and water may be ascertained by suddenly arresting the current in its passage through the hose, by compressing the rubber tubing near the catheter, and inspecting at the glass section of the hose. If the air beads are relatively the larger, then the aperture (b) under the rubber stopper, in the long metalic tube, is too large; if the air beads are smaller than the water beads, then the aperture is too small. In either case the aperture should be so made that the beads will be about equal in size.

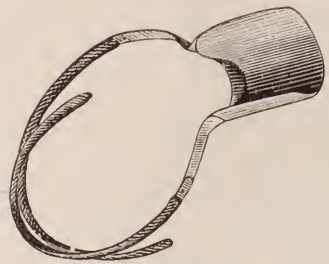
In its application, the catheter is introduced horizontally into the nasal cavity to be cleansed (Fig. 3). The coarse spray or spattering current of liquid and air is made to pass directly upward; by slight rotation of the instrument on its axis, the stream will wash and blow the secretions from their lodging

places under the turbinated processes, and in the highest portion of the cavity, in a much milder manner than a steady stream from any form of a syringe applied either in the anterior or posterior nasal openings, and in a much more efficient manner than the Weber Nasal Douche.

The cleansing process may be greatly assisted by the patient closing the nostril not treated, and then giving a quick and forcible blow out of the one that is being washed, this will expel the liquid and everything loose with considerable force.

A nasal guard, (Fig. 4) fitted on the head so that it may be

FIG. 4.



Nasal Guard.

placed under the nose, will prevent the irrigating solution and the muco-purulent secretion from falling on the lips, and from soiling the clothing at such times as the patient is blowing his nose.

This apparatus, if care is taken not to force too much air into the reservoir, fills all three of the indications that are required to properly cleanse these cavities. 1st, It does not produce irritation; 2d, it throws the irrigating fluid to all parts of the nasal cavity, even under the turbinated processes; and, 3d, it has force enough to remove all of the hardened secretions, and cleanse the surfaces after they are removed. This force is completely under the control of the patient or the person employing the apparatus, so that the coarse spray of air and liquid may be caused to strike the secretions with such force only as is required to remove them, and after the removal, the force may and should be lessened, to complete the cleansing.

The amount of fluid that is employed is a matter of great importance. We must keep in mind that the mucous membranes, especially that portion of them that are in a healthy condition, absorb to their injury more or less of every liquid that comes in contact with them; for this reason the application of the water should be discontinued just so soon as the hardened secretions are removed, even if the washing process produces a pleasing sensation. If the washings are protracted, the healthy mucous membranes in the lower portion of the nasal cavities will absorb so much water, that they will become swollen, in which condition they are more liable to be injured by the influences of out-door atmosphere.

If at any time the force of the stream is such as to produce a painful sensation, which lasts beyond one or two seconds, then the washing should be discontinued, even if the passages are not entirely cleansed. If the disagreeable symptions pass off in a few seconds, the washing might be commenced again, but with such force of the stream as to produce no disagreeable sensation; if the pain occasioned by the first effort, lasts beyond one minute, then the washing should be deferred for several hours.

The washings should be done in the morning before breakfast, and repeated often enough to keep the passages free of hardened secretions, but each time using as *small an amount* of fluid as will accomplish the cleansing process.

As soon as the secretions cease to become hardened, the washing by the Catheter Nasal Douche may be discontinued, and the inhalation of the water from the palm of the hand substituted, as the latter mode is sufficiently effective, and is accomplished with much less trouble.

The irrigating solution is made by dissolving in a pint of water, that is a little warmer than blood heat, about one teaspoonful of common table salt. Patients will soon learn from experience whether or not this is the proper strength and temperature. Water either without salt or with too much in it, produces more or less pain, yet, with the right quantity (which varies slightly with different individuals), it produces

a pleasant, bland sensation. Cold water causes a disagreeable as well as an injurious effect.

For those cases in whom the secretions are offensive, five grains of salicylic acid should be added to the pint of solution.

DANGER FROM HYPODERMIC INJECTIONS.

By E. Fletcher Ingals, M. D.

[Lecturer on Diseases of the Chest and Physical Diagnosis—Rush Medical College.]

I have often used hypodermic injections of morphia, and always with good results, until a few weeks since, when I obtained alarming results from the administration by this method of one-fourth of a grain of morphia.

The patient, in consequence of continuous watching with sick children, had become debilitated, and as a result, suffered at times from severe pains of a neuralgic character.

I was called in the night to see her in one of these attacks. The pain had commenced about twelve hours previously, and with frequent exacerbations, had steadily increased in severity until it had become unbearable.

I dissolved one-fourth of a grain of morphia in pure water, and administered it under the integuments on the outer side of the arm. Within a few seconds the breathing became stertorous, the pulse failed, the lips and countenance became livid, and the eyes were set; respiration ceased, the radial and cardiac pulsations were lost, and the heart sounds could not be distinguished. The woman was to all appearances dead. How long this condition continued I cannot tell; it seemed an age, but was probably only ten or fifteen seconds, for by prompt means I succeeded in resuscitating my patient.

After a few minutes she expressed herself as much relieved. I remained with her some time, and then left careful directions with the husband in case any other unfavorable symptoms should occur. During the next few hours the patient fainted twice, but she was restored by dashes of cold water in the face.

This case called to mind what I had recently heard from Doctor Wenger, regarding the use of hypodermic injections. I wrote him, requesting notes of accidents which had fallen under his observation, and he kindly sent me the following reply:

GILMAN, ILL., June 4, 1877.

E. F. INGALS, M. D., Chicago.—*Dear Doctor :*—Your favor of the 29th ult. received and contents noted. I am very glad that your attention has been called to the subject of injecting morphine into the system. I have used it myself, but never without some fear; fortunately I have not had any bad results from it, and think I never will. I herewith send you a hastily prepared paper on the subject, which you are at liberty to use as you think best. The last case mentioned was my mother-in-law, the physician a most excellent man; the disappointment, remorse and regret that will follow him through life, is enough to deter any man from ever using the instrument, that knows anything about the case.

Very respectfully yours, E. WENGER.

The paper reads as follows:

That medicine will enter the circulation by absorption from blistered surfaces, and produce its constitutional effects, has been known for a long time, but the introduction of medicine into the system hypodermically, by mechanical means, is, I believe, of rather recent origin. And so popular has this new plan of administering medicine become, that almost every physician is armed with a hypodermic syringe, ready to perform the squirting operation upon his patient for almost every ache or pain, and I believe the profession generally sanction it as a safe and harmless means of relief, especially the young and more enthusiastic.

To condemn the practice as pernicious and unjustifiable, would be rather a bold step just now, but I desire to call the attention of the profession to a few cases that have come under my observation, the results of which have been sufficient to convince me that to inject morphine into the circulation is dangerous, and should never be done when there is any possible means of giving it in any other way.

Case 1. I was called to see a woman in her fifth confinement. On my arrival, found her in convulsions. Another physician had been called, who arrived in a few moments. I, at once suggested bleeding. The doctor had just bought a hypodermic syringe (the first I had ever seen), and suggested the injection of morphine, to which I assented. The effects of the convulsion, or the injected morphine, brought on a heavy stupor with slow, stertorous breathing, from which she could

not be aroused. I delivered her with the forceps. She slept on until she breathed her last.

Case 2. An old gentleman was suffering with rheumatism; he was attended by a promising young physician who had gained some notoriety by the use of the hypodermic syringe. He injected morphine on this occasion, and in a few minutes became alarmed at the condition of his patient. He at once sent for another physician, who, on his arrival, learned the condition of things. Noble-hearted man that he was, to save the young man's reputation, he pronounced it a case of appoplexy. By prompt and persevering treatment, he succeeded in saving the old man's life. He then advised the young man in a friendly way, to be a little cautious how he used the squirt in the future.

Case 3. Mrs. W., aged about 56, had pain in one of her shoulders; in the morning she called the family physician, a man of knowledge and experience. He injected morphine into the arm, and relieved her in a few minutes; in the evening he called again, and found his patient well, but thought to secure a good night's rest, it would be well to inject a little more morphine, which he did, and in thirty minutes his patient was a corpse. The feelings of the doctor can be better imagined than expressed.

I have other cases that I could mention, but these are enough to satisfy me that the Hypodermic Syringe should never be used where there is any possible way of giving the medicine in any other way. E. Wenger, M. D.

Gilman, Ill., June 1st, 1877.

Since writing the above I have inquired of a few of my medical friends and find that several of them have had unpleasant experiences with the use of morphia by hypodermic injections. Two of my friends have had cases almost identical with my own, and doubtless many others have come under the observation of those who have made extensive use of this method of treatment.

I am satisfied that no precaution can be taken which will insure us against accidents from this mode of treatment.

E. F. I.

FOUR SUCCESSIVE RUPTURES OF THE UTERUS IN THE SAME PATIENT WITH FAVORABLE TERMINATION.

By Dr. J. M. Rose, of West Winfield, N. Y.

Mrs. P. Da—, native of Ireland, age 32 years; has resided in this country about twenty years. She is the mother of two children, the oldest four and the youngest two years of age. Mrs. D. was taken with labor pains, June 1st, 1869. The pains were regular, the head presented, the os dilated well, and everything promised a favorable termination of the case within a few hours.

After she had been in labor about five hours, she had quite a severe pain, and complained more than usual. This pain was followed by fainting, with general prostration, and in a short time with great tenderness over the whole abdomen. Upon introducing my hand into the vagina, I could feel nothing of the child. Suspecting a rupture of the uterus, and thinking that the patient would die, I sent for my friend, Dr. E. King. After consultation we concluded to get the fœtus away if possible. I gave the patient a dose of opium and some milk punch. I then proceeded to deliver her. I passed my hand through the os, and finding a rupture passed my hand through the opening into the cavity of the abdomen. I succeeded in finding the feet, brought them down and delivered a dead child in about twenty minutes, together with the after-birth, which was also in the cavity of the abdomen. She bore the operation quite well. I ordered her to take an eighth of a grain of morphine in connection with two grains of quinine every four hours, unless she rested, with beef tea and milk punch for food. I also gave half a drop of fluid extract of veratrum viride every four hours.

June 2d. I found the patient better than I expected; pulse, 80; temperature, nearly normal. Continued treatment.

June 3d. Pulse, 80; more irritable, bowels very tender to the touch. Continued treatment.

June 4th. In the morning, pulse, 90; in the evening, 120. Bowels, tympanitic; vomiting, can retain but very little nourishment. She sleeps but little; pain not very severe unless she is moved, or pressure is made on her bowels. Stopped veratrum viride.

June 5th. Pulse, 120, morning and evening; vomiting; tongue red; gave syrup of chloroform, which stopped the vomiting.

June 6th. Pulse, 110, morning and evening; bowels less tender, and have moved once. Continue morphine and quinine.

June 7th. Pulse, 100 in the morning, 110 in the evening; rested quite well. Skin moist the most of the time.

June 8th. Pulse, 100. Calls for food; wants meat and potatoes. She has lived principally upon milk punch and beef tea up to this time.

June 9th. Pulse, 100; tongue red, symptoms favorable. Treatment continued.

June 10th. Pulse, 95; bowels moved four times. There is considerable pain. Increased the amount of morphine.

June 11th. Pulse, 95; bowels quiet; is better.

June 13th. Pulse, 90; bowels quick, no tympanitis; tongue appears better.

June 15th. Continues to improve; can turn in bed without help.

June 17th. Still improving; pulse, 90; tongue moist and not so red. Continue quinine, with the addition of morphine at evening.

June 20th. Improving; patient wanted to get up. I told her to wait.

June 24th. Pulse, 85; skin natural; sat up a short time.

June 30th. Pulse, 80; tongue looks quite natural; bowels tender to pressure; can move about by being very careful. Continue tonics, iron and bark, with careful diet. In a short time she was at work.

I was again sent for to attend Mrs. D—, in confinement,

April 1st, 1872. I found her in good spirits, thinking that she was going to get along all right. The pains went along as usual for three or four hours when they suddenly stopped, and were followed by great prostration and tenderness of the bowels. Suspecting that the uterus had again ruptured, I made an examination and found that the head had receded, and passing my hand into the uterus I found that my suspicion was correct. I proceeded to deliver as before, by passing my hand through the rent in the womb and bringing down the feet. I delivered her in a few minutes. She bore the operation very well.

April 2d. I found the patient quite comfortable; gave anodynes with supporting treatment.

April 3d. Bowels very tender; pulse 100; temperature 99; gave aconite in addition.

April 4th. Pulse 100; temperature 100; bowels tympanitic.

April 6th. Pulse 110; temperature 101; vomiting; bowels quite tender, with purulent discharges from the womb.

April 9th. Pulse 110; temperature 100. Is taking light food—beef tea and milk punch.

April 15th. Pulse 100; temperature 98; appetite good; symptoms quite favorable; was lying in bed and taking care of her two children sick with scarlet fever. She improved gradually, and in about a month was doing light work. In connection with the use of the anodynes and tonics, I applied turpentine to the bowels.

It may be proper to state that the long intervals between my visits, were due to the state of the roads, which were in such a condition as to render it impossible for me to visit her as often as I thought she needed.

On May 18th, 1874, Mrs. D——— was again taken with labor pains, which lasted about two hours and stopped suddenly, followed by feelings of faintness, with tenderness over the abdomen. A physician had been sent for, who told her that the pains had stopped, and that perhaps they would not come on in a week or more. On the strength of his assertion, they

waited until the morning of the 20th, when they sent for me. Upon making an examination, I found the os partially dilated, so that I could introduce my hand and pass it into the womb, when I discovered that it was again ruptured. I told her husband that there was great danger of her not recovering, when he said that I must wait before doing anything until the arrival of the priest, as they had sent for him and he would be there in a few hours. I left, telling him that I would be back at 1 o'clock p. m., and advised him to send for Dr. King to meet me at that time. The doctor came, and confirmed my diagnosis, and after the priest had got through with the patient, we proceeded to deliver her. She had become so tender that it was necessary to give chloroform. Dr. King give chloroform. As soon as she became quiet, I introduced my hand and brought away the placenta, which lay in the abdominal cavity near the opening. I then passed my hand again; the head was in the lower portion of the bowels. I carried my hand up and got hold of the feet, and delivered her in a few moments.

The child had been dead so long that the skin would slip off upon handling.

After delivering the child, I introduced my hand again. I could pass it up to the upper portion of the abdominal cavity, and move it about without encountering any adhesions or obstacles of any kind. The rent in the womb was transverse and in its posterior portion; it felt as though half of the womb had been cut off with a knife. The womb had contracted to about the size of the two fists. None of the contents of the abdomen passed through the rent. She bore the operation very well.

May 21. Patient apparently doing well; takes beef tea, milk punch and opium.

May 22. Pulse 110; bowels tympanitic; fever, with darting pains; great tenderness. Rested some last night.

May 23. Pulse 120; temperature 100. She had been vomiting, and had had three movements from the bowels, which caused her to be in great pain. Continued opium and quinine, with gelseminum every four hours.

May 24. Pulse 120; temperature 102. Had a diarrhœa;

bowels moved quite often. Added subnitrate of bismuth to powders.

May 25th. Diarrhœa continued. She had twenty or thirty movements. Temperature, 100; pulse 120.

May 27th. Pulse, 107; temperature, normal. Some appetite; bowels moved four times. Continue bismuth and opium treatment.

May 29th. Pulse, 94; bowels moved twice. Continued treatment.

June 1st. Pulse, 90; bowels regular. Sat up an hour yesterday. All favorable.

Since writing the above, Mrs. D——— has been delivered of a living child, after another rupture of the womb.

She was taken sick about one o'clock in the morning of February 28th, 1876. I saw her at a quarter past twelve the same day. She had been having regular pains for about two hours. About twenty minutes before I saw her, she had a pain, and the waters broke; she said she felt a great movement of the child,—she felt it pressing up under her ribs. I made an examination, and could just reach one foot with the finger. Introduced my hand and brought down the feet, and delivered a living child as soon as possible. The delivery was accomplished in about ten minutes, before the placenta was detached from the womb. There was strong pulsation in the cord after the delivery of the child.

29th. Mrs. D——— is quite comfortable. Pulse, 85; not much fever. She is suffering no more than is usual after an ordinary delivery.

30th. Doing well. Pulse, about 80; temperature natural. No great tenderness of bowels. A little bloody discharge from the vagina.

March 5th. Mrs. D——— is doing finely.

HYDRASTIS CANADENSIS IN UTERINE HÆMORRHAGE, AND MENORRHAGIA; AND ALSO IN DYSMENORRHEA.

By W. A. Gordon, M. D., Hannibal, Mo.

I have not seen *Hydrastis Canadensis* prominently spoken of in the leading text-books, as a reliable agent in hæmorrhage, from any of the mucous surfaces or in any respect worthy of especial notice further than as a good bitter tonic; and recommended in a general way as possessing merit in chronic diseases of the mucous membranes.

During the past ten years, I have made quite extensive use of hydrastis prepared in the form of tincture from the fresh root, with such positive and satisfactory results in uterine hæmorrhage, that I now seldom resort to any other remedy.

The tincture I use is prepared after the following formula:

R. Rad. hydras. can. (fresh) - ozii.
Aq. dest. - - oj.

Maintain at a temperature of 120° F., for 24 hours; then add spts. rec. Oj—remove from the bath—and in three days it is ready for use. In those urgent cases where I formerly resorted to half-drachm and drachm doses of the fluid extract of ergot every twenty or thirty minutes, I now use the tincture of hydrastis in doses of from twenty to thirty drops, repeated the same as ergot, until the active hæmorrhage is controlled. The remedy is then continued in small doses—say two to five drops—every two to four hours, according to the urgency of the symptoms. In cases of marked prostration from loss of blood, I combine with the hydrastis, the tincture cinchonæ flavæ, in small doses, say from five to eight drops, which combination seems to produce a quiet and gradual contractility of both muscular fibres and capillary vessels of the

womb; and effects a more natural and comfortable reaction from the extreme prostration attending this class of cases, together with an entire absence of cerebral and gastric disturbances which are so frequently concomitant symptoms following the administration of large doses of ergot.

In *Menorrhagia*, I have found it to give decided and prompt relief. In this class of cases, I am in the habit of giving from two to five drops of the above tincture of hydrastis in a teaspoonful of water every two or three hours, or oftener, and in larger doses if the urgency of the symptoms demands it. After the flow is brought to its normal quality, the minimum dose is continued twice a day until the next period of menstruation, when if the excessive discharge recurs—resort again to longer and more frequent doses, until it is brought under control.

In *Dysmenorrhœa* caused by chronic endo-metritis, the tincture of hydrastis with bromine has given me very satisfactory results.

In the use of bromine as an internal therapeutical agent, I have observed that persons of a nervous temperament are highly susceptible to its influence. I would here incidentally remark, that during our late war, I had occasion to use it quite extensively in the military hospitals of the Department of Kentucky, under the direction of Dr. M. Goldsmith, late surgeon U. S. V., and my observations there were such that in the majority of cases treated with bromine—which were hospital gangrene and erysipelas—the doses recommended and administered internally were not attended with as good results as much smaller doses, frequently repeated. See U. S. Dispensatory for preparation and dose.

In some cases, classified under the head *neuroses*, and especially those arising from diseased conditions of the procreative system, I have known one-twentieth the dose directed by the U. S. Dispensatory produce violent headache, ranging from the frontal sinus along the track of the longitudinal sinus down to the base of the brain, with a marked increase of pulse in volume and frequency. In one instance the pulse was increased fifteen

beats per minute, which lasted about two hours before it began to decrease, and did not resume its normal beat until the expiration of seven hours, from the time the dose was administered. This case was a nervous female afflicted with endometritis.

In these nervous susceptible cases, I have met with some that could not tolerate over ten drops of the following solution, four times a day without stimulation and headache:

R. Bromini, gt. j.
Aq. dest. oj. M.

If a much larger dose than the above is continued for several weeks it will almost positively produce *membranous dysmenorrhœa.*

The formula I am now using in several cases of endo-metritis is to take equal parts of the above aqueous solution of bromine and tincture hydrastis, and give fifteen to twenty drops of the mixture three times a day, and if restless at night give a dose at bed-time.

My reasons for being somewhat explicit on the internal administration of bromine is from the fact, that its potency has so limited its use, that comparatively few members of the profession have ever given it a fair trial.

But if given in small doses, such as suggested above, or even smaller, I am satisfied that it is a remedy of more than ordinary merit as an alterative and stimulant to the procreative system, and at no distant day will be found to possess great value as a remedy for increasing cell action in the nerve centres controling the sexual system of man.

THE PATHOLOGICAL TRANSACTIONS OF THE CHICAGO MEDICAL SOCIETY.

Edited by DR. I. N. DANFORTH.

I.

INTRA-OCULAR TUMORS.

(WITH NINE SPECIMENS.)

By Prof. E. L. HOLMES.

The moment the presence of a tumor within the globe is recognized, there is almost absolute certainty that vision in that eye will be more or less speedily, but in the end totally destroyed; and in the majority of cases, death will be the ultimate result. These tumors, therefore, are nearly all malignant,—such is the nature of the nine specimens which I present for your inspection this evening.

To dismiss with as few words as possible the subject of non-malignant intra-ocular growths, I will simply state that they are chiefly: First: Cysts of the iris. This formation generally develops as a remarkably transparent sac after a wound of the iris, which, if neglected, is sure to destroy vision. The early removal of the portion of the iris to which it is attached, may leave vision intact. But three such cysts have fallen under my observation. Second: Cysticerci, which are scarcely ever found in this country. Third. A peculiar cystic degeneration of the hyaloid artery in the vitreous humor, only one example of which I have ever seen. Fourth: A development of pigment cells around the edge of the pupil resembling the "corpora nigra" so often present in horses. A remarkable example of this anomaly I described in the Transactions of the Illinois State Medical Society for 1873. All these tumors disturb vision more or less under the most favorable circumstances.

The malignant tumors are almost wholly confined to two classes—sarcoma of the choroid, ciliary processes and iris, peculiar to adults, and glioma of the retina, only found, with rare exceptions, in infants or very young children. A very few other forms of tumor with unusual cell structure have been reported in ophthalmic literature.

The sarcomatous tumors before you, with one exception, scarcely fill half of the globe.

Fig. 3.

Choroidal Tumor (Sarcoma). To Illustrate Dr. Holmes' Article.

The eyeball is shrivelled and rendered elliptical by being mounted upon a glass slip suspended in alcohol; but the position and relations of the tumor are well shown.

They vary much in color, from a light brown to jet black. They are characterized by a mixture of small round or elongated and large fusiform or stellate cells, "distinguished in general by large and sharply defined nuclei and bright well marked nucleoli.

Fig. 4.

Showing the histological elements of the sarcomatous tumor represented in Fig. 3. Glycerine preperation. From a camera drawing by Dr. R. U. Piper. (Hartnack No. 5).

The course of development of these growths may be conveniently divided into three periods: 1st. When there is no pain, nor inflammation, when sight in a portion of the field of vision may still be quite good and when the tumor, in uncomplicated cases, may be seen with the aid of the ophthalmoscope. 2d. When inflammatory action has caused closure of the pupil and cataract, and pain, which sometimes causes the patient to seek medical aid. Increased tension (hardness) of the globe in this stage is usually a most important symptom. The diagnosis is sometimes difficult in aged patients, who cannot give the past history of their case, when the symptoms may be those of a neglected glaucoma. 3d. When the tumor has invaded the neighboring tissues.

With the general history of the case, I think the presence of large tortuous vessels in a circumscribed portion of the ocular conjunctiva, is an important symptom, in doubtful cases.

The malignancy of these tumors is scarcely apparent to the general practitioner, when the specialist has extirpated the globe in their early stage of development, for they seldom reappear in the orbit. Death is none the less certain, I believe, although it may take place at a period seldom more than four years subsequent to the extirpation of the globe, from malignant disease of some internal organ, especially the liver. The family physician too often fails to associate the death of his patient with the eye removed some years before.

When the tumor has been permitted to break through the sclerotic and cornea and invade the adjoining tissues, the malignancy becomes apparent. Death may occur from direct injury to the brain, or from excessive discharges, or the absorption of poisonous fluids into the blood.

If we turn to gliomatous tumors we find a growth which, with or without treatment, almost universally and quite speedily forces upon the mind of the general practitioner the idea of malignancy—for whether it is removed or permitted to remain, it rapidly becomes a fungus hæmatodes, destroying life by direct injury of the brain or by exhaustion produced by great discharge or by contamination of the blood.

In nearly all instances the disease appears in the eyes of in-

fants or very young children, who cannot call attention to their failing sight; consequently, the ophthalmologist seldom has an opportunity of examining the tumor in its very earliest stage. When the retina has become involved to a considerable extent, there is clearly seen deep in the eye a peculiar glimmer, which may be compared to polished German silver partially tarnished. This change is usually first observed by the mother of the patient. The diagnosis in the first stage is remarkably simple, although in very rare cases a peculiar form of choroiditis may be mistaken for retinal tumor. It is especially worthy of attention that detached retina, or choroiditis, or in fact any form of disease which might possibly be regarded as glioma, almost never appears in infants. Occasionally glioma is observed in both eyes.

The cells of this growth are characterized by their great similarity to the true granular cells of the normal retina, being round, nucleated, with nucleoli. The term glioma was originally applied to these tumors as developing from the connective tissue (glia, glue), of the retina. As they now seem to be a proliferation of the true retinal granules, the term is a misnomer.

The only treatment of this form of tumor is as early as possible to extirpate the globe. The only object of this operation is to prevent or relieve pain, for it can scarcely be said to save life.

The subject of intraocular tumors has been extensively discussed in especial works and journals of ophthalmology. The best and most available special work for the American reader is perhaps that of Dr. Knapp, of New York.

Reported March 12, 1877.

II.

ENCEPHALOID CANCER IN A CHILD TWO YEARS AND SEVEN MONTHS OLD.

By Prof. T. DAVIS FITCH.

February 18th, 1877, I was called to see Theodore L. B., aged two years and seven months. He was a robust child, large of his age—dark complexion, and had always enjoyed

extraordinary good health from his birth, with the exception of slight bowel derangement during dentition, and a green-stick fracture of the left ulna in July, 1876. The child was delivered under my care, and had always been treated by me in these slight derangements, so that I had been familiar with him from his birth, and know that he was an unusually robust child.

On examination at the date above mentioned, I found the child irritable in temper, fretful, temperature slightly elevated, pulse 120, bowels constipated, urine normal. His face was pallid and his eyes sunken and glassy, with a dark ring under them; his countenance resembling that of a child in collapse, from cholera-infantum.

February 19.—Found the child in much the same condition as on the previous visit. The mother called my attention to the fact that the child had been a little lame in the right leg, and this was verified by allowing him to walk across the room. I then pressed the head of the femur with some force into the acetabulum accompanied with rotation, and it seemed to give him pain, though there was apparently no inversion or eversion of the foot; it led me to suspect morbus coxarius. Bowels had moved and some slight relief seemed to be afforded.

February 22d.—The condition very little changed. Noticed an unusual prominence of the right cheek, which seemed to be hard and insensible. No pain manifested on pressure, no abnormal heat or redness. Was informed that the child fell against the corner of a chest about two weeks previous to this attack, but no mark of the bruise had resulted; no pain complained of. The child had unusually high cheek bones, and this was thought due to irregularity of the features.

February 25th.—The child seemed worse, and the swelling of the cheek had increased. I then examined the mouth and found a swelling in the gum opposite the eye tooth, which I then thought was an abscess, from its doughy feel or semi-fluctuating character. On puncturing, it discharged only blood. I was then led to fear malignant disease, and expressed my convictions of this fact to the parents. *No history of cancer in the family.*

February 26th.—Called and found the child in much the same condition but evidently failing; advised counsel.

February 27th.—Dr. R. G. Bogue was called, the diagnosis was confirmed, and an unfavorable prognosis given.

The buccal tumor continued to grow until about March 12th, when it protruded an inch beyond the lips, and in a few days sloughed off. The cheek became more prominent, glassy, and the skin so thin and transparent that the enlarged subcutaneous vessels could be very distinctly seen. About this time Prof. Danforth was called in, who at once recognized the disease and corroborated the diagnosis and prognosis. The child became quite prominent in the epigastric region, and on palpation a hard tumor was detected reaching nearly to the ensiform cartilage; this swelling increased rapidly till his death on the 27th March.

Autopsy 24 hours after death. Present Profs. Danforth, Chas. W. Earle and Sarah Hackett Stevenson. The child was greatly emaciated. The main object of the post mortem was to ascertain the origin and character of the tumor in the abdominal cavity. No examination was made of the facial tumor. The lungs, pleura liver, heart, stomach and intestines were found in a healthy condition.

The tumor was found to be a cancerous degeneration of the left kidney; not even a trace of the normal kidney remaining. The tumor was composed of cysts of various sizes and containing fluid of various kinds; large clots of blood were found in some of them. A tumor of similar character was found in the right groin about the iliac vessels, immediately above Poupart's ligament. This tumor was somewhat larger than a hen's egg, and was undoubtedly the cause of the lameness complained of in the first week of the sickness.

The larger tumor was about the size of a man's two fists, and would weigh about two pounds.

These specimens were place in the hands of Dr. Danforth for examination and presentation. He will give you the *microscopy*.

Note.—The histological elements found in the specimens placed in my hands by Prof. Fitch were such as clearly indicated encephaloid cancer of the most virulent or rapidly growing form. Large atypical cells were abundant, but the connective tissue element or

"stroma" was almost wholly wanting. The cells presented no great variety as to form, because the density of the cancerous mass being much the same in all its parts, they encountered the same resistance to growth on all sides; hence it was possible for each cell to develop symmetrically. In scirrhus and the denser and more slowly growing forms of encephaloid, the developing cells encounter fibres of connective tissue between which they must push their wedge shaped processes; therefore, we find the "caudate" or "polygonal" cells, which were so long regarded as indicative of cancer. But the cells in the case under consideration presented a very marked variety as regards size and other features. The number of nuclei varied from one to four; and some of them, might well have been taken for the "giant cells" of Virchow. I found the usual luxuriant small cell infiltration, derived from the leucocytes and their descendants; also the *debris* of degenerating structures which were invaded by the cancerous growth, and numerous fat globules. It seems to me that Prof. Fitch's case is one of profound interest pathologically. A child only two years old, of fine *phisique*, enjoying "extraordinary good health," reared under favorable circumstances as regards care, cleanliness, diet, air and all other conditions which conduce to infantile health; entirely innocent of any hereditary tendency to cancerous disease, so far as could be ascertained, and quite too young to have acquired any such disease by means of personal vices, is suddenly attacked by cancer in its most virulent and ferocious form. Moreover, it is a case so clearly typical, that no question can be raised as to its nature; every one of us who saw the child either ante- or post-mortem, at once pronounced the disease cancer, and the microscope added its confirmatory evidence. The question of all-absorbing interest to the pathologist is, whence and how came this invasion of cancer in a manner apparently so causeless and inexplicable? Such cases teach us that pathology is yet in its infancy. I. N. D.

Reported July 30th, 1877.

III.

INTRA-MURAL FIBROID TUMOR.

By Dr. MARY H. THOMPSON.

Mrs. M. E. H., aged 32; American. She was a widow with one child, a boy about eight years of age; entered the hospital Jan. 5, 1876.

Said she had been sick since July, '75, with catarrh of the womb, and had been treated for the same. In December of the same year, while menstruating, was taken very sick; thought she "took cold."

She is rather pale, with tongue red and glazed; slight fever; great pain in the abdomen and lower part of back; has slight metrorrhœa. The abdomen slightly dull on percussion at the level of umbilicus, increasing in dullness to pubis.

Examination per vaginam reveals a disk of inflamed cellular tissue, extending across the pelvis at the junction of the vaginal and supra-vaginal portion of the cervix uteri, and holding that organ and roof of vagina quite immovable, obscuring to the touch the outlines of the corpus uteri.

The appetite is variable; rarely any headache; habitual constipation; very little difficulty in micturition at any time.

Feb. 13. Cellulitis rapidly disappearing; some pus evacuated from the rectum.

Feb. 14. Prof. Byford is called in consultation. The cellular tissue is found sufficiently softened to enable us to map out the outlines of the corpus uteri, which is enlarged to the size of a large orange, and of a globular shape, and thought to contain an intra-mural fibroid tumor, occupying the anterior wall of the body.

The patient continued improving for about three months, taking from 20 to 30 drops of Squibb's fluid extract of ergot a day, but with little or no effect on the tumor. She was then dismissed to obtain a change of air. While out she visited my office occasionally, that I might watch her condition, and that she might be readmitted when necessary. But as the hospital was crowded, I was obliged to refuse her admittance. Yet while traveling about, her metrorrhagia returned more than previously.

Dec. 19. She came into the hospital again. Said that during her absence she had been in another hospital, and that a sponge tent had been used, which was thought to have cured her, but at this time she was thin and bloodless.

The tumor was apparently increasing. From this time, whenever an examination was made per vaginam, a slight hæmorrhage was caused, especially if the finger was introduced, however carefully, into the uterus. The lining of the cervix felt slightly rough as far as could be reached, which was $\frac{2}{3}$ of an inch in extent from the os. Menstruation would come on like a sudden hæmorrhage, frequently ceasing in a day, and as suddenly as it began. On several occasions she became pulseless, and was not expected to survive. At these times Gallic acid was the only drug which seemed to have any effect upon the hæmorrhage.

Jan. 8. The pain was gradually increasing, and could be controlled only by opiates.

Jan. 27. Diarrhœa came on, succeeding constipation; these

conditions ever afterwards alternating. Dysenteric pains accompanying the former, and a "continued grinding pain" the latter.

May 8. Is in great pain, unless under the influence of morphine.

May 14. Is but a skeleton; feet swelling; tongue red, dry, and glazed; taste unnatural; complete anorexia; is in great pain; urine thick and scant; much exhausted and failing.

May 17. Dimness of sight in left eye, which continues about three days; is the only paralysis of the nerves of sensation which occurred.

June 1. Death occurred at 11 P. M.

Post-mortem examination fourteen hours after death.

Body much emaciated. Adipose tissue nearly all absent, muscles shrivelled. Small tumors of lymphatic glands (?) about the size and shape of an apple-seed were found on the abdomen, beneath the subcutaneous tissue, which would roll under the finger from side to side. The lymphatics in the vaginal region were greatly enlarged.

The foot, left leg and thigh were greatly œdematous. The abdomen was greatly distended and tympanitic.

The abdomen and pelvis only were examined. When the first incision was made through the abdominal wall, the intestines formed large hernial protrusions on account of their distension with gas and half liquid fæces, and their walls were so fragile as to rupture while lying exposed to the atmosphere.

The womb was not found so large by several times its size as was expected; it was externally of nearly its normal shape; but in its width, which was about four inches, including, on one side, an apparent fallopian tube, twisted about so that its os abdominalis was adherent, and incorporated with the uterine body; on the opposite side are apparent enlarged ovaries, which had been adherent to and formed a part of the mass which included the womb.

It appeared like a fibroid, degenerated into a friable mass of a dark brown or brownish red color, yet containing nodules of hard white fibroid material, intermixed with the dark mass.

The pelvic connective tissue was changed into the same material, only the fibroid nodules in this substance were not as large as in the body of the uterus.

Upon lifting up the body of the womb to dissect it out of the pelvis, it was found to be so friable as to come off in the hand, leaving the vaginal portion of the cervix in the pelvis.

The cellular tissue was so soft in all parts as to let the fingers into it with the least possible force; but throughout its substance run thread-like bands of fibrous tissue, which had united the womb to the bladder, and woven its way to the pelvic walls. Around the rectum, it was found much more abundantly: it bound that canal to the sacrum so closely that only a finger could be introduced into its caliber from above the level of Douglas' cul-de-sac downward.

The bladder was found to contain a few ounces of *healthy looking* urine. The left kidney, with the upper portion of its ureter, contained two ounces of urine; the right one about an ounce. The intestines were greatly distended with gas, and half liquid fæces, from the stomach downward. These walls were thin and tender, though having the appearance of being perfectly natural. The stomach was empty, and so contracted as to appear but a slight dilatation of the alimentary canal; though, like the intestines, its walls appeared natural.

When closing the incisions of the abdominal wall, it was found to be so soft as scarcely to be held between the thumb and finger, without pieces tearing away; and the force required to thrust a common suture needle through it was no more than it would require to pierce the thinnest muslin, from the pubes to umbilicus; yet to the naked eye its appearance was perfectly natural.

The diaphragm was pushed up to the fourth rib on the right side, and on the left to the fifth intercostal space. The gall bladder was greatly distended with its natural contents. The spleen much atrophied.

The tumor was submitted to Dr. Danforth for microscopic examination.

NOTE.—Upon examining the mass left with me by Dr. Thompson, I could not make out that any distinct and isolated tumor ever existed. The mass seems to include the uterus, and its appendages; the whole united and consolidated by inflammatory pro-

liferation of connective tissue. Microscopic examination of thin sections taken from different portions of the specimen, show essentially the same structure, namely, small spindle cells woven together in circular or elliptical groups, small round cells enclosed in the cavities formed by the spindle cells, or lying in the spaces between them, and numerous tortuous thickened blood vessels. As to the origin of the morbid growth, it seems to me impossible to decide. It may have commenced, as an intra-mural fibroid which became inflamed, and from which the inflammatory process extended to the general pelvic connective tissue, producing excessive hypertrophy and induration of that tissue, or it may have been wholly due to general inflammatory proliferation of the connective tissue cells. I am inclined to adopt the latter view, because it most satisfactorily explains and accounts for the conditions which existed. I. N. D.

Reported July 16, 1877.

IV.

CASE OF AMYLOID DEGENERATION OF LIVER AND KIDNEYS, WITH CARIES OF LUMBER VERTEBRAE.

By Dr. W. T. BELFIELD, Ass't Physician, Cook County Hospital.

Mary L., aged 3 years, was admitted to the hospital, May 1, 1875. For some reason which can be only conjectured, neither her previous nor her subsequent history was recorded; hence our only information in regard to her, is gleaned from the traditions handed down to the present internes, and from the personal knowledge of the nurse. Unsatisfactory as such a history necessarily is, the rarity of the case is, perhaps, sufficient apology for its presentation.

The child had been always delicate; had never walked, the inability being due, apparently, not to malformation, but to a lack of strength. On admission she was quite emaciated; skin cool, very white and transparent; appetite excellent, usually had several clay-colored stools daily; from a small opening below Poupart's ligament on the right side there was a slight but constant purulent discharge; there was evidently considerable liquid in the peritoneal sac. She was so weak as to be unable even to feed herself; her mental faculties were quite acute, and she took the usual delight in the ownership of dolls and other toys.

During the first year, her history was simply a gradual aggravation of the ascites, and of the diarrhœa; her stools finally averaging from 12 to 20 daily, but retaining their peculiar clay color and semi-solid consistence. Some enlarge-

ment of the liver became evident. During all this time, notwithstanding the unavoidable lack of exercise, society and amusement, her general condition did not decline; her appetite became voracious; and except during periodical exacerbations of the diarrhœa, she complained of no pain. She was serene, contented, almost happy. The late Prof. Freer, upon taking charge of the ward in which she lay, pronounced the case one of amyloid degeneration of the liver.

About a year ago a small tumor appeared and burst in the gluteal region of the right side. From this opening there was a constant purulent discharge. About six months ago, the abdomen being then greatly distended, there became apparent œdema of the feet, gradually extending upward to the knees. From this time the little patient declined visibly in health, and finally, without the development of additional symptoms, died May 2, 1877.

A *post-mortem* examination revealed the presence of about five quarts of clear, yellowish liquid in the peritoneal sac; a fibrillated exudate on the superior surface of the liver, and among the folds of intestine. The liver was much enlarged, weighing 57 ounces; was very smooth, dense and elastic; the edges were rounded; the cut surface was of waxy appearance, dry and almost bloodless; the lobules were plainly mapped out by white boundary-lines; a thin section was quite translucent; the addition of iodine in solution produced a mahogany-red color.

The kidneys, also, were enlarged, smooth and dense, weighing 3 ounces each. Section showed the enlargement to be due chiefly to thickening of the cortical portion, which also presented an unusual pallor. Treatment with iodine caused the malpighian bodies and vasa recta to assume the same mahogany-red color.

There was also extensive caries of the lumbar vertebra, from which a sinus extended to the opening on the hip.

Microscopic examination was made under the supervision of Dr. Danforth, pathologist to the hospital. Sections were cut by hand, soaked for a few minutes in glycerine and acetic acid, and then stained with a solution of iodine in iodide of

potassium and water. In the liver, the calibre of the interlobular vessels appeared somewhat diminished; the liver-cells were swollen, of rounded, regular outline, and devoid of nuclei; in many cases there seemed to have been obliteration of the intercellular substance and coalesence of cells; the entire lobule, excepting only the scanty connective tissue, presented the mahogany-red color. There was no evidence of fatty degeneration.

In the kidney, the vascular coils of many malpighian bodies, the corresponding vasa afferentia, and some of the vasa recta, exhibited the iodine staining. Some of the malpighian bodies and many vasa recta showed no change of color.

This case is in accord with the published statements of authorities. Thus Niemeyer says: "Lardaceous liver never occurs in persons otherwise healthy; it is more apt to occur in advanced cachexia, particularly in cases resulting from scrofulous or syphilitic affections, from tedious suppurations, and caries of bone."

Rindfleisch inverts the order of probable causes, stating that it is found "most frequently after long-continued suppuration in the osseous system, caries of the vertebræ, necrosis, etc.; furthermore, it is not a rare attendant upon constitutional syphilis." Green gives still more prominence to the predisposing influence of suppuration, stating that the disease most frequently occurs in conjunction with "profuse and long-continued suppuration, such as chronic diseases of bone, empyema," etc. "It also frequently occurs in the advanced stages of constitutional syphilis, but usually only in those cases in which there is chronic bone disease or chronic ulceration."

Judging from our scanty history, and from the microscopical appearances, it appears probable that the patient in question was of scrofulous diathesis; that the first lesion was caries of the vertebræ; that this was soon followed by amyloid infiltration of the liver, and finally, probably within eight months of the date of her death, by a similar degeneration of the kidneys.

Reported May 28, 1877.

V.

A CASE OF ENTERO-PERITONITIS WITH SUPPURATION.

By Dr. HENRY VAN BUREN, Chicago.

Willie S. Aged 4 years.

On the 21st of February last this little patient was attacked with vomiting—pulse, 120 per minute, and strong febrile symptoms.

On the 23d his pulse was 140, and the vomiting and fever continued.

The abdomen now became swollen, and the tongue coated and reddened at the edges and tip, and for one week all the symptoms of an ordinary case of enteritis were present.

On the 2d of March, the tympanitic character of the bowels had nearly disappeared, the other symptoms abated, and the patient was supposed to be convalescent.

On the 4th of March, I discovered the bowels swelling again; they were hard and tense, and pressure caused great pain. The pulse was 140, and all of the earlier symptoms were renewed. These continued and increased from the 4th to the 11th of March.

The abdomen was now distended to 36 in. in circumference, the normal size being about 18 inches, crowding the contents of the abdominal cavity against the diaphragm, and obstructing the respiration and the heart's action.

The veins over the abdomen became engorged, and could be readily traced over the whole surface.

The fæces were now dark and at times muco-sanguinolent, or purulent in character.

The patient on the 9th and 10th of March became greatly prostrated, partially comatose, and the vomiting continued troublesome.

The treatment thus far had been mostly opiates, with small doses of hydrarg. cum creta, and the diet beef tea with brandy.

Poultices were kept constantly over the bowels.

An effort was made to lessen the enormous distension of the bowels, by introducing a long flexible tube into the rectum and

applying an air-pump. Some of the accumulated gases were thus removed.

On the evening of the 10th, the case of my little patient had become a desperate one. And, on a further examination of the abdomen, I discovered what I thought to be a cavity of pus, with the centre about one inch below the umbilicus, and its diameter probably not more than about 3 or 4 inches.

Dr. Norman Bridge had been in consultation with me during the progress of this case, and it was determined on the morning of the 11th of March to make an opening into the peritoneal cavity and intestines. Owing to uniform tympanitic resonance, the consulting physician did not believe that we would find pus, but that a puncture with an aspirating needle would be highly proper, to relieve the enormous distension of the bowels by the escape of gases. It has already been intimated that I believed there was pus, and as Dr. Bridge concurred in the opinion that an opening should be made, with his assistance I performed the operation.

The instrument used was a small trocar and canula, and the point of entrance made at about one inch below the umbilicus; the instrument was thrust into the abdomen a distance of about three inches. The trocar was withdrawn, and 20 ounces of fluid escaped through the canula (which, under the microscope and by chemical test, proved to be pus with only slight traces of fecal matter).

On the afternoon of the same day, we made two additional openings with the needle of the aspirator, one on each side, a distance of about five inches from the umbilicus. This instrument was thrust into the intestines, and the pump applied, and through the aspirator we got a dark colored fecal discharge, but no pus.

On the following morning, March 12th, the opening first made with the trocar was slightly enlarged with a bistoury, and through this opening eighteen ounces of pus, additional to what had escaped—now discharged—some of which was lost by spurting out on the floor by the side of the puncture.

Incredible as it may appear, as shown above, no less than

38 ounces of pus, dense in quality, escaped through the opening made in the regio umbilicalis, within 36 hours after the operation.

The poultices were continued for one week, after which the abdomen was covered with cotton-batting. The opening remained for about three weeks, during which time, weak solutions of carbolic acid were injected into the opening.

The patient was given citrate of iron and quinine, brandy and lager beer, and took the extract of six pounds of beef every twenty-four hours.

We had in this case, I think, general enteritis, and circumscribed inflammation of the peritoneum, and the pus was found mostly in a well or pocket in the peritoneal cavity, in the region of the umbilicus.

I have this to say, respecting this little patient. His case is the most remarkable one of its character which I have seen on record, and it is wonderful that he has entirely recovered, and is to-day a healthy vigorous child.

Reported, July 16th, 1877.

To the Members of the Chicago Medical Society:—With the present issue, the first year of the publication of the Pathological Transactions of our Society, is completed. The net results of the undertaking up to this time, are the permanent record of twenty-one articles, some of which are novel, and all of which are of value to ourselves and the profession at large, and the creation of increased interest concerning pathology, on the part of our membership. But the Editor desires, in future, to interest a far larger proportion of the members of our Society, in the work of sustaining the publication of our "Transactions." Only fourteen of the members have contributed to the Transactions during the past year. A number quite too small, when compared with the roll of membership. Not one-half of the really valuable material presented to the Society during the past year, has been utilized for the benefit of science. For the future success of our enterprise, there should be, on the part of the members of the Society: 1st. A more careful and systematic observation of the course, progress, and results of interesting and unique cases. 2d. More general interest upon the subject of the pathological anatomy of fatal cases. 3d. The cultivation of the habit of reporting cases—especially those which terminate fatally—*in writing, to the Society*, so that such reports may be available for publication. The Editor of the Transactions respectfully urges that the foregoing hints be practically adopted by the members of the Society. I. N. D.

Correction.—Owing to a mistake in the manuscript the formula for preparing the tincture of Hydrastis Canad. (p. 142) is not quite correct, *it should read six ounces* of fresh root instead of two. W. A. G.

Translations.

THE PATHOLOGY OF RHEUMATIC FACIAL PARALYSIS.

By Dr. O. Berger.

Translated from the *Deutsche Med. Wochenschrift*, Dec. 9, 1876.
By H. M. Bannister, M. D.

The extraordinary frequency of rheumatic facial paralysis, and in so many cases the indisputable clearness of its etiological conditions, very naturally cause it to be considered, as has been usually the case, the typical form of rheumatic nervous paralysis. Facial paralysis itself has been the starting point of a series of investigations, which the pathology of peripheral paralysis has to thank for the very high grade of perfection the diagnosis and prognosis of these affections have attained. Still, there remains a very palpable defect to be remedied, pathological anatomy is not in the condition to inform us as to the nature and seat of the anatomical lesion underlying facial paralysis. There remains to be made, therefore, only a careful clinical analysis, to supply the decisive answer to the question of the localization of the cause of the paralysis. Whoever is accustomed, not to notice merely the gross paralysis of the facial muscles of expression, but, mindful of the important physiological routes of conduction included in the facial nerve, to take the trouble to notice also other functional disturbances, will easily be in a position to give a tolerable local diagnosis. Erb* has recently reviewed the subject in an excellent memoir, and has demonstrated that with especial attention to the separate branches of the facial nerve, (posterior auricular, chorda tympani, stapedius, superficial petrosal nerve,) an absolute localization of the anatomical seat is possible in many cases. The fact that rheumatic facial para-

*On Rheumatic Facial Paralysis. *Deutsche Archiv. f. Klin. Medicin* 15 Bd.

lysis regularly affects all the facial branches, makes permissible the conclusion that the lesion which affects the conduction of the nerve is situated in the stem of the facial and not in any one of its branches. This can be either in the short section outside of the Fallopian canal, (after its exit from the stylo-mastoid foramen), within the same, or in the course of the nerve up to the base of the cranium. Trouble in this last named situation will scarcely be looked for, and in general we have to do with disorder in the first mentioned two localities. Various authors have expressed the opinion that every case of rheumatic paralysis, the light as well as the severer forms, has its anatomical seat in the Fallopian canal. Thus Baerwinkel* sometime since, and again more recently, has stated that the disease is always accompanied with an affection of the middle ear, the lighter ones with a serous, quickly absorbable exudation, and the severer forms with a plastic exudation. Convincing grounds for this were not given, and on the other hand the view is sufficiently satisfactory that in mild cases the anatomical lesion is situated in the nerve stem outside the Fallopian canal, and in severe ones within the same, and it has received the most general adoption.† In the inflammatory (rheumatic) swelling of the neurilemma which is usually considered to be the anatomical basis of the "refrigatory" facial paralysis, there would be in the first case, with its favorable mechanical conditions, only a mild form of the paralysis, and in the second, on the other hand, on account of limitation of space, a severe compression, and resulting secondary degeneration of the nerve would be produced. Erb, in his conclusions in the above mentioned extended memoir, speaks in favor of this view. As characteristic of the localization of the lesion in the stem of the facial after its exit from the stylo-mastoid foramen, we may mention the paralysis of the facial branches while the hearing, taste, salivary secretion, and the palate remain unaffected. A further evidence of this localization is an

*_Archiv. der Heilkunde_, 1867, _S._ 82. _Deutsche Arch. f. Klin. Med._ 14 Bd. S. 122.

†Compare, among others, the exposition of facial paralysis by Eulenberg (Lehrbuch der funct. Krankh.) and by Erb, (Ziemssen's Handbuch der spec. Pathol.).

intact condition of the posterior auricular nerve, which leaves the stem close to the stylo-mastoid foramen, and innervates the occipital and the small aural muscles, and which, as Erb remarks, forms the boundary mark for the portions of the facial within and without the Fallopian canal. In spite of the abundance of casuistic material there are few cases in which this criterion can be made use of. The reason for this is sufficiently plain. The paralysis of this branch can only exceptionally be determined by the failure to move the ear, in those rare individuals who possess the ability to do so normally. Nevertheless, we can resort to another means to accomplish this. The electrical examination should be resorted to in all these cases, and it would not be difficult to demonstrate the pathological condition of this nerve. Thus Erb says that he himself in all severe cases in which he suspected the implication of this nerve has found it upon applying the electrical tests, a statement that perfectly coincides with my own experience. The case is different, however, with those slighter forms in which we find no perceptible change in the electric excitability, and in which we also desire to test the mobility. Erb has therefore suggested, correctly, that it would be to the highest degree interesting to obtain some certain data upon the condition of the posterior auricular nerve in the milder cases of rheumatic facial paralysis. I am now able to satisfy this want. For some years I have maintained in my lectures the proposition, supported by numerous clinical demonstrations, that the anatomical localization in rheumatic facial paralysis, in the mild as well as in the severer forms, must always be sought for in the Fallopian canal; and that the position assigned the lesion by the majority of authors, in the short section of the nerve after its exit from the stylo-mastoid foramen, is perfectly unsupported by evidence Thus it is incomprehensible why injurious atmospheric influences should always affect the main stem of the nerve and never its separate branches, notwithstanding the fact that the latter are relatively much the most exposed. I know of no case of recognizable rheumatic facial paralysis in which all the facial muscles of the side were not involved in the paralysis, and must refer

opposing statements to fallacious observations. A relative integrity of certain branches may indeed be observed under peculiar circumstances,* but never an absolutely intact condition of single muscles. There is, moreover, no positive proof for the position I have above mentioned. The grounds upon which this statement seems to me to rest are as follows:

1. I can enumerate a number of cases of slight (rheumatic) facial paralysis in which electrical examination a short time after the appearance of the paralysis (8 to 80 hours), showed a perceptible and indubitably proven increase of the direct and indirect electrical irritability (to both currents). In all these cases the posterior auricular nerve and its innervated muscular region shared in this increase. I have been able repeatedly to demonstrate this to my hearers.

2. Several cases in which the disturbances of function on the part of the chorda tympani, twice also of the stapedius, allowed a diagnosis of the lesion within the Fallopian canal, nevertheless followed the course of the milder forms, and during their whole course showed no indication of the "*Entartungsreaction*," the paralysis disappearing in from eighteen to twenty-seven days.

3. Finally, I have come across one case that is absolutely confirmatory of my view. A few words will suffice for its description. On October 12th of this year, my colleague, Dr. Hannes, referred to me a railroad employe, August Schikora, aged thirty-eight, for electrical treatment. Three days previously he was taken with facial paralysis, from working many hours with heated sweating body in a draft of air under an open shed. No disturbances of sensibility or aural symptoms had appeared. On the contrary, the patient stated that since the appearance of the paralysis, while eating he had the sensation on the right anterior half of the tongue as if every thing was unsalted, but still

*A single instance only is reported recently by Baerwinkel, of uninvolved posterior auricular nerve, in a case of severe paralysis with proven localization within the Fallopian canal, (chorda tympani implicated). It cannot be accepted as a satisfactory case of "isolated exemption," since, according to the author's own statement, the faradic reaction (and as it appears, the motility also) was diminished as compared with that of the sound side.

there were no spontaneous subjective taste sensations. This peculiarity, moreover, disappeared entirely in a few days. *Status præsens*, October 12. Total right facial paralysis. Uvula and palate normal, alike when at rest and in movement. With objective testing of the sense of taste, the same perfection was found on the right as on the sound side. No abnormality of the salivary secretion. Tongue projected straight forward; no disorder of hearing. Sensibility altogether intact, reflex excitability of the paralyzed muscles increased.

Electrical examination. High degree of increase of faradic and galvanic (direct and indirect) excitability, tolerably uniform in all branches, and especially demonstrable in the ramus frontalis; difference of the faradic contraction minimum 15–20 mm., with stronger currents the right contraction somewhat stronger than the left. No qualitative alteration of the contraction law; on the other hand, a notable increase of the mechanical irritability, demonstrable from the separate nerve branches as well as by direct excitation of the muscle; no retarded character of the contraction. The posterior auricular nerve and its muscles (occipital, retrahens auri, and attollens auri) also showed this increased reaction. While I was already clear in mind as to the participation in the paralysis of the posterior auricular nerve and its muscles, this fact was, in this case, also demonstrable by testing the voluntary action of these muscles. In reply to questions, the patient stated that he had been conscious immediately after the occurrence of the paralysis, together with the general loss of motility of the muscles of the face, of an inability to do what he had long been able to do, to move the ear on the right side.* Even the first days following the

*This ability seems, according to my private experience, to be not altogether so uncommon. Yet it rarely happens that a person thus gifted suffers from facial paralysis. Two analogous cases, previously seen by me were of the severer variety and unsuited for the decision of the matter in question. It is self-evident that the independence of the contraction must be supported by close examination and palpation of the relatively strongly developed ear muscles, and of the adjoining parts of the head. By energetic innervation of the frontal muscles it is tolerably easy to produce a pseudo-movement of the concha.

paralysis he had proven this to himself and to his wife before the mirror. Examination revealed that the right ear like the facial muscles remained perfectly quiet to all voluntary impulses, while the left could be moved forwards and backwards voluntarily in the most pronounced manner. On the fifteenth of October (sixth day of the paralysis) the electric irritability had already become less from day to day, and on the twentieth it was exactly alike on either side of the face; the posterior auricular also participated in this change. From the commencement of the treatment the paralysis visibly improved, and the mobility of the right ear increased in the same ratio as the return of mobility in the muscles of expression, it was interesting to notice its gradual improvement. On the thirtieth of October (twenty-first day after the appearance of the paralysis) I was able to discharge the patient thoroughly cured without a trace of asymmetry; and with a special subject of enjoyment on his part, that with the perfect functional ability of his facial muscles, he had also recovered his old power over his right ear.

This case affords a characteristic example of the lighter form of rheumatic facial paralysis. On the fifth day there were signs of returning nervous conduction, a week later the motility had perceptibly improved, and after three weeks—even a day or two sooner—the cure was complete. The participation of the posterior auricular nerve, the primary increase of electric excitability, and its later decrease, show that the anatomical seat of the lesion is to be sought within the Fallopian canal. Immovability of the corresponding ear, definitely established, and a localization of the lesion in the trunk of the nerve after its exit from the stylo-mastoid foramen, together, are incompatible.

From the normal condition of sense of taste and the salivary secretion (the slight temporary paraesthesia of taste must be referred to a slight irritation of the chorda tympani by reason of its neighborhood to the lesion), we are led in one case to place the special seat in the lowest portion of the Fallopian canal, external to the giving off of the chorda.

Thus we have afforded the desired evidence of the localiza-

tion of the lesion interrupting nervous conduction in the Fallopian canal, in the milder form of rheumatic facial paralysis. So long as the opposed condition (absolute freedom from paralysis of the ear muscles) is not proven, the presumption of the localization of the lesion outside of the bony canal appears to be a gratuitous and unsupported hypothesis.*

Under any circumstances, our observation is an unassailable proof that the difference of the affection is not due to a different location, but to the intensity of the anatomical process; it is not—as according to the views generally held hitherto—the indications for one or another seat of the anatomical lesion, but singly and alone a methodic electrical examination—and this some days after the appearance of the paralysis—that gives us a satisfactory criterion for a reasonable prognosis in regard to the duration of the not dangerous, it is true, but nevertheless very disagreeable rheumatic facial paralysis.

*Here comes in the question, why the injurious local influence of cold never affects single branches, but always the nerve stem? Perhaps we may mention here those cases of slight local rheumatic affections, not infrequently met with, in which from exposure to cold air, drafts, etc. of the face, there is developed a certain stiffness and sense of immobility—generally in the muscles of the cheek—which lasts but a short time and then disappears. Here we have perhaps to do with slight disturbances of nutrition of certain nerve-twigs, which on account of the unrigid character of the soft surrounding tissues do not give rise to any compression interrupting nervous conduction. We may also mention the slight disturbance of sensibility almost always accompanying these conditions, which must naturally seem to us to be due to the intimate association of the trigeminus fibres with the branches of the anserine plexus; while in the case of a lesion of the main trunk of the facial the trigeminus branches are naturally unimplicated.

Clinical Reports.

RUSH MEDICAL COLLEGE CLINIC.

Service of Prof. Moses Gunn.

(Reported by Edmund M. Landis, M. D.)

Pulpy Degeneration of the Knee Joint.

Mrs. M. D., American, aged 25. The patient, whose previous health had been good, states that three years ago, she fell from a fence, alighting on her heel, after which the right knee became swollen and painful. Since then it has gradually and slowly enlarged. The knee has been more swollen than now, but has never been red. The pain is moderate but is greater than formerly. The leg is slightly flexed. The patients health has gradually failed, having lost some forty pounds.

On examination, taking the sound limb as a standard of comparison, find that the tissues on either side of the patella are larger, giving to the touch a sensation of *elasticity.*

This last fact is important, as the symptoms in the case simulate hydrarthrosis, but differ in the point of elasticity, the absence of fluctuation, and in the impression on the patient's health.

Pronounce it "Pulpy Degeneration of the Knee Joint" which has invaded the tissues about the joint, filling them up and extending outside.

The patient has come for advice as to the removal of the leg. She has been under competent treatment, but has not improved. Personal experience with this form of disease does not allow me to extend hope of benefit from palliative treatment.

Hueter claims fine results in these cases from injections of weak solutions of carbolic acid; but in the cases which have come under my observation, this has not been corroborated (the fact however, has been demonstrated, that weak solutions of carbolic acid can be injected into the knee joint with perfect impunity, as the point of the syringe was carried on a number of occasions right beneath the patella).

Periostitis.

John H., Irish, aged fifteen, painter. The patient is a poorly nourished lad, who, his parents state, has no hereditary taint, and whose only previous sickness was scarlet fever, which he had seven years ago.

One and a half years ago, the boy received a blow on the left tibia from a shinney stick, but at the time was not apparently much injured. Three months afterwards he was taken with severe pains in the leg, which lasted some two or three months, and which were worse at night, keeping the patient awake until two or three o'clock in the morning.

There have been five or six such attacks, with intervals of two or three months. Is suffering from one now, which commenced three weeks ago. The leg has gradually enlarged from the first, but only to a slight degree of late.

On examination find the left tibia enlarged forward along the whole extent of the crest, thus increasing its antero-posterior diameter. There is a slight, lateral enlargement, but it is confined to its lower extremity. Strong percussion elicits pain, which is greatest near the ankle.

This is a rare form of periostitis, rare in the shape of the enlargement it has produced. A healthy lad, free from disease except the attack of scarlet fever seven years previous, receives a blow on the skin, which was not painful, when three months afterwards it began to pain and enlarge. (The pain at the ankle is probably sympathetic.) We frequently encounter these enlargements, but not in this form. On grasping the tibia it is found that it is not enlarged laterally except at its lower part. The question, however, is whether we have hypertrophy or abscess. We frequently have enlargements from bone abscesses, but they increase the diameters in all directions, while the enlargement is more localized. Hypertrophy with abscess, also frequently occurs, and is also more circumscribed than in the present case. Periostitis with hypertrophy, is not usually so painful as abscess, having painful periods with exacerbations. The pains in this case have been nocturnal for two months at a time.

Have trephined for three cases, at times removing large de-

posits of pus, at others only obtaining a drop or two, and again not demonstrating that there was an abscess, yet in all giving relief.

Think that the nocturnal pains point to an abscess, but it would be difficult to find the point in the bone to strike it, although there are several which seem suspicious.

It is thought that an incision through the periosteum might afford relief.

The patient was anæsthetized, and an incision about eight inches in length made through the integument, along the crest of the tibia, down to the periosteum, which was then incised by five parallel incisions co-extensively with the incision in the integument.

As the incisions were made in the periosteum, some half a dozen or more enlarged periosteal vessels spurted very freely, showing its abnormally vascular condition. The edges of the incisions gaped and the periosteum was found thickened and spongy. After hemorrhage had ceased, the wound in the integument was brought together and secured by interrupted sutures.

Warm water dressings were ordered. The pain which had been regular up to the time of the operation, ceased, and has not yet returned, the patient sleeping the first night and every night since. The wound healed kindly and rapidly, and the patient has resumed his occupation.

CHICAGO MEDICAL COLLEGE CLINIC.

Service of Prof. S. J. Jones.

[Reported by S. O. Richey, M. D.]

A Case of Clonic Blepharo-Spasmus.

February 28th, 1877. Mr. C., a railroad employe, has been a clerk for fifteen years past, working continually, much of the time by artificial light. Hard work, inability to get sufficient sleep to recuperate his strength, and an immoderate use of tobacco combined to produce marked nervous depression.

In both eyes vision is normal ($v = \frac{20}{20}$).

There is violent spasmodic action of the upper lids of both eyes, which, besides the annoyance it gives, interferes with the performance of his duties, because his eyelids will close at the most critical time.

He is advised to secure all the sleep possible, to eat good nutritious food, to rest the eyes, and to give up the use of tobacco and stimulating drinks. A shower bath for the eyes, and the elixir of calisaya, iron and strychnia are prescribed for him, with twenty grains (gr. xx) of bromide of potash, daily, when going to bed.

March 2d. He returns improved; the spasm of the lids has ceased, he sleeps better, eats more heartily and seems more vigorous.

March 5th. The improvement continues, the change being perceptible even in his complexion.

March 20th. The patient has been seen several times since the 5th inst., each time being stronger than before. He has had no return of the spasm.

The spasm of *both* lids, the absence of local inflammation, with the other symptoms mentioned, directed attention to the condition of the general system as the cause of the affection, the spasm being a local evidence of general nervous debility.

NOTES FROM PRIVATE PRACTICE.

Congenital absence of Uterus and Vagina:

Simply as a matter of record, I report the following case of congenital absence of the uterus and vagina, which lately came under my observation.

Miss H.—aged 19—nationality, Irish—third child in a family of six children, four of whom were boys. She says there is no deformity or arrest of development, either in any of the other children, or anywhere else among any of her other relatives; that all are perfectly formed and healthy.

She has never menstruated, but about once a month she has some headache and a sense of fullness in the abdomen.

She was first led to believe that "something was wrong" with her about a year ago, from the fact that she "did not have her courses as other girls do." She says she enjoys the society of the opposite sex she "supposes the same as any girl does." Apparently she is a perfect specimen of young womanhood—tall, well developed, robust and active. Examination (afterwards confirmed by Dr. W. H. Byford of this city) showed, the parts well covered with hair; labia majora and nymphæ, as well as clitoris and hymen well developed and natural. Meatus urinarius normal in position. Mammæ large and also well developed, but the most careful and rigid examination *failed to find either vagina or womb.* There is, however, no reason to doubt the existence of the ovaries.

Chicago, June, 1877. A. W. Gray, M. D.

Local anæsthesia.—In the following communication, I wish to call the attention of the reader to a simple method of producing local anæsthesia in some operations of minor surgery, as in opening an abscess, excision of inverted toe-nails, etc. The contrivance is a very old one, yet it is not so thoroughly appreciated by practitioners, as in my opinion, it ought to be, for it is extremely simple and reliable. The principle upon which the method is based, is the fact, that a mixture of equal parts of ice or snow, and common salt produce a very high refrigerating action of from 0° to 17° C = from 32° F to 0° F (according to Hager's text-book). The way to make use of this physical fact in surgery is as follows:

Take pounded ice or snow - one part (spoonful,)
Common salt - - - one part (spoonful)

Put both on a soft rag (musquito netting); mix it to form a kind of poultice and press it quickly against the skin, where you intend to make an incision. In a very short time the skin freezes and becomes absolutely insensible and bloodless, thus affording the double advantage of avoiding any pain and of preventing the blood from obscuring the field of operation. As to the length of time this state of the skin might be main-

tained without endangering its vitality, I have made no experments; but I think it may be continued a longer time, than is required for the performance of any minor operation.

As the temperature begins sinking the moment the ice and the salt are brought in contact, all that is necessary for the performance of the operation must be ready before making the mixture. Special care must be taken to have the knife as sharp as possible, for the frozen skin is remarkably tough, and resists the instrument to a high degree.

I may add, that, if the fingers or toes be the parts on which an operation is performed, the ice-salt-poultice seems the best method of applying the refrigerating mixture, because we can cover the finger or the toe all around with ice; but on the other hand, if a larger surface (for instance, the breast in a case of mastitis suppurativa) be the object of operation, we best proceed by putting on the spot, previously selected for incision, a piece of ice as large as a hickory-nut, that is then sprinkled with salt. Almost instantly the skin beneath the ice freezes; then we take away the ice and salt and make the incision. That the size of the ice-salt poultice in the one case, and the size of the piece of ice in the other depends, after all, upon the length of the intended incision, is hardly necessary to be mentioned.

The following two cases may be reported to confirm the above statements:

1. Some time ago I was called to a woman, who received a splinter of wood under the nail of the right thumb, while she was washing the floor. I saw the patient 3 days after the accident; the splinter which had advanced as far as the root of the nail was broken short at the edge of the nail, in consequence of previous attempts at pulling it out. A diffuse swelling, throbbing and burning indicated that inflammation had already set in; the patient was nervous and feverish, and was so excited by fear of the knife, that she would hardly allow me to touch the finger. But being assured she would not feel any pain from the operation, she submitted to it. I applied an ice-salt poultice (as described) close around the nail-phalanx of the thumb. After some 2 or 3 minutes the thumb was frozen

and completely white and insensible. Having cut open the nail with a pair of scissors all along the splinter, I removed the latter, with the pus which had begun to form around the foreign body, and finally cleansed and dressed the wound, while not a drop of blood came out and while the patient had not the slightest feeling of what was going on.

2. Some 3 weeks ago, I saw a case of mastitis suppurativa in puerpero. The pus was deep-seated, fever high, and the patient, a young married woman of nervous temperament, excited to the highest degree, by the thought that she would have to be cut. For obvious reasons, I insisted upon opening the abscess at once. As in the first case, I had some difficulty in persuading the frightened patient to follow my directions and not to think of pain. Yet, after all, I was allowed to proceed. I put a piece of ice as large as a hickory-nut on the spot, which seemed the most suitable for incision, and sprinkled the ice with common salt. Almost instantly the skin, in the circumference of a quarter of a dollar, became white, and having removed the ice, I plunged the knife through the frozen skin, into the abscess. The patient who lay there shivering from fear, did not feel the incision at all, and was greatly surprised when she opened her eyes, by seeing the pus flow out.

Dr. H. Banga, Chicago.

Reports of Societies.

MINNESOTA STATE MEDICAL SOCIETY.

The ninth annual meeting of the Minnesota State Medical Society was held in the city of St. Paul on the 19th of June last, continuing for two days, Dr. F. H. Milligan, of Wabasha, presiding.

The meeting was characterized by the usual harmony and good feeling, and, in addition, by the reading of a number of papers and reports of decided ability, as well as by the action of the Society upon various matters, of interest both to our own State and to the profession at large.

The President, Dr. Milligan, in his opening remarks, made certain suggestions of great practical importance; of greater importance, perhaps, to those practiced upon, than to those who practice; although by no means destitute of benefit to the latter class. Of these, the most valuable were recommendations to the Society to adopt measures looking to the enactment of laws by the Legislature making vaccination compulsory, and also, to require all aspirants to pharmaceutical honors to appear before a board of properly qualified examiners for examination and license, with a view to the adoption of a higher standard of education in this important branch.

The President also urged the Society to request our congressional delegation to use every proper means to secure an appropriation from the United States for the families of the discoverers of anæsthetics, as a suitable though tardy recognition of the inestimable benefits conferred by them upon mankind.

These suggestions were unanimously adopted, and committees were appointed to carry their provisions into effect.

Unanimous action was also taken by the Society upon certain recommendations of the Executive Committee, in accordance with which one committee was appointed to cooperate with other organizations in seeking to abolish the duty on quinia, and a second, to endeavor to obtain reduced fares from the railroads in this State for delegates to the meeting of the American Medical Association at Buffalo next year. From all which it will appear that the physicians of this State are in full accord with their brethren in their efforts to promote the interests of humanity, and of the medical profession.

The Society took occasion to reaffirm their previously recorded opinion, that illuminating oils of less than 150° F. flash test are unsafe, and to request the Legislature to restore the test to that standard; they having, most unwisely, seen fit to substitute 130° F. last winter for the higher and safer test.

Upon the earnest recommendation of the Secretary of the

State Board of Health, Dr. C. N. Hewitt, of Red Wing, a committee was appointed whose duty will be to collect and collate facts with reference to the use and abuse of alcohol in this State, taking note of age, sex, nationality, heredity, etc., and to report at the next meeting, so that, if possible, a remedy may be discovered for an evil of vast dimensions, and an era of practical reformation be begun.

Among the papers of special interest was one by Dr. I. E. Finch, of Hastings, chairman of the Committee on Practical Medicine, on Myalgia. The doctor treated his subject with great skill, and succeeded in investing what some had been disposed to regard as trite, if not trifling, with a high degree of interest. His argument, after a close pathological study, was conclusive as to the differentiation of myalgia and true rheumatic affections.

Dr. Franklin Staples, of Winona, read a paper upon carcinomatous affections, citing a number of cases, and supplementing his remarks by the exhibition of photographs, crayon sketches, and pathological specimens.

The report of the Committee on Obstetrics,—Dr. W. L. Lincoln, Wabasha, chairman, elicited a lively discussion as to whether death of the child ever results from strangulation by the cord; the debate arising from a case which was reported, of death in utero from a tight knot upon the cord, there being also a loop of cord around the neck. Some difference of opinion existed, but the general sense of the Society was against the fatal issue of the condition in question. Much interest was shown in the relation of a fatal case of flooding, and the alleged agency of chloroform in conducing to the unfortunate result, by favoring relaxation. Upon this point, it seemed to be the opinion of the majority, that cases, in which chloroform is directly chargeable with the death of the patient, are exceedingly rare, but that due caution should always be exercised in its use.

Other papers of merit were read, and other interesting cases reported, of which want of time and space forbids the mention here, but which will appear in detail in the forthcoming volume of Transactions.

As to personal matters, Dr. W. I. Sloan, U. S. A., now on duty in this city as medical director at the headquarters of the department of Dakota, and one of the oldest and most esteemed members of the medical corps of the army, was elected an honorary member of the Society. The pleasantest feature of the session was the adoption of a hearty vote of thanks to the retiring Secretary, Dr. C. E. Smith, of St. Paul, who had served in that onerous capacity for six years with untiring zeal and marked ability, and, as a more substantial recognition of his services, the presentation to him of a copy of Holmes' System of Surgery—a well deserved testimonial.

The officers elected for the coming yeare are:

President, Otis Ayer, M. D., Le Sueur; 1st Vice-President, C. P. Adams, M. D., Hastings; 2d Vice-President, A. C. Wedge, M. D., Albert Lea; 3d Vice-President, E. E. Collins, M. D., Minneapolis; Treasurer, S. B. Sheardown, M. D., Winona; Recording Secretary, C. H. Boardman, M. D., St. Paul; Corresponding Secretary, E. Phillips, M. D., Minneapolis.

Reviews and Book Notices.

THE MICROSCOPIST: A MANUAL OF MICROSCOPY AND COMPENDIUM OF THE MICROSCOPIC SCIENCES, MICRO-MINERALOGY, MICRO-CHEMISTRY, BIOLOGY, HISTOLOGY, AND PATHOLOGICAL HISTOLOGY. Third edition, re-written and greatly enlarged, with two hundred and five illustrations. By *J. H. Wythe, A. M., M. D.*, Professor of Microscopy and Biology in the Medical College of the Pacific, San Francisco. Philadelphia: *Lindsay & Blakiston*, 1877.

The reappearance of this book, one of the oldest, if not the oldest work on the subject which has been published in the United States, is an indication of the interest which microscopical studies have attracted for the last twenty-five years in this country, and would lead one to expect a high character of a book which has kept its popularity so long.

The book, exclusive of the preface and index, containing 253 pages, is divided into thirteen chapters. Chapter I. is made up

of remarks upon the history of the microscope and its uses. Chapter II. deals with the theory and construction of simple and compound microscopes. Chapter III. gives a sketch of some of the accessories of the instrument, and chapter IV. deals with the use of the instrument and test objects. Chapter V. on methods of examining objects, and chapter VI. on mounting and preserving objects. These six chapters occupy sixty-seven pages of matter, and bring us to page 84.

Here the author leaves the general consideration of the subject of microscopy and passes on to particular lines of study.

He gives us one chapter (VII.) on the use of the microscope in geology and mineralogy; one (VIII.) on the use of the microscope in chemistry; one (IX.) on the cell theory. Chapter X. gives a sketch of the lower orders of vegetable life, beginning with the vegetable cell and its parts, the vessels, and other structures found in plants, and then the various substances, as starch, gum, oils, etc., of which they are composed. He then gives a description of the lower orders of plants, including fungi, diatoms, etc. Chapter XI. is made up of a list of the lower forms of animal life; chapter XII. gives an outline of human histology, and chapter XIII. is taken up with the use of the microscope in pathological investigations.

It will be seen that the work includes a wide range of topics, the shortest of which if treated with completeness would more than fill a volume the size of the present one. It may be worth while to go over this book with some minuteness, and see how our author has succeeded in his difficult task of putting an encyclopædia in such a short compass.

Chapter II. is a condensation of the brief and puerile sketch of optics usually found in the ordinary works on the microscope. It seems to us that it is time for such chapters to be expunged from works upon the practical use of the microscope. They are an attempt to popularize the science of optics, a thing as easy to do as to popularize mathematics or Greek, the attempt only ends in filling valuable space with material which is useless at the best, and generally teaches positive error. Those who wish to learn the optical principles of the microscope should go to works on optics.

Our author, instead of improving upon the usual character of such chapters, has rather fallen below it. We need only refer to an example or two. On page 25, (fig. 3.) he give as an illustration of the construction of an acromatic object-glass, a form that was obsolete fifteen years ago. On page 26, he says that the ordinary Huygenian eye-piece is composed of two plane convex lenses, with their plane sides next the eye, *whose focal lengths are as* 3 *to* 1, and which are placed a distance apart equal to half the sum of their focal lengths.

This is, to be sure, an old formula, but is not used so far as we are aware, by any modern maker. The focal lengths of the glasses are more nearly 2 to 1. Merz, of Munich, uses exactly that proportion; his 1½ eye-piece has lenses of 2 and 1 inch focal lengths placed about two inches apart. Beck's A eye-piece has lenses of 2½ and 1⅝ inches focal length. Scarcely any two makers use the same formula. A little farther down, he states that Dr. Royston Riggott's aplanatic searcher is an apparatus for getting a greater amplifying power, when, in fact, its main purpose was to improve the correction of object glasses.

Chapter IV. is common-place, and much behind the times. On page 56, in speaking of Nobert's lines, he reproduces the substance of the paragraph on the same subject in Carpenter's *old* edition of "The Microscope and its Revelations," and he appears never to have heard of the resolution of these lines which within the last few years has become so common. In the next paragraph, he goes on to speak of some of the more common test diatoms, but he is evidently unacquainted with the structure of these objects as seen with modern objectives.

Chapter V., on "The Modern Methods of Examination," being a condensation of chapters seven and eight of Frey's work on the microscope, is better. In many portions, however, the descriptions are so brief as to be almost unintelligible to the beginner, especially when he departs from his master and attempts a description on his own responsibility. On page 62, for example, he conveys the impression that substances hardened in watery solutions may be imbedded in wax or paraffin without the withdrawal of the water. The ruin of a few val-

uable specimens by a trial of this method will be sufficient to convince the novice that there is something wrong in it. Such hasty and imperfect descriptions only do harm, by leading to inevitable disappointment in the novice who, at the best, is doomed to encounter difficulty and disappointment enough to discourage any but the most persevering even when the best is done for him by his author.

Chapter VI., although commonplace enough, is exceedingly incomplete. It is deficient in giving neither the newest methods, nor the best of the old methods. For example, in his description of the method of mounting in balsam, he makes no reference to the method of mounting *wet* preparations by transferring through absolute alcohol to oil of cloves, or turpentine, to balsam; one of the most valuable as well as the most common of the modern methods of mounting. Nor does he speak of the use of balsam in solution, another exceedingly valuable method.

We need hardly take up the time of the reader by entering into examination of the remaining chapters, which are neither better nor worse than those we have gone over. No one of them, we are sure, would be of use as a working manual for any one, either student or expert.

The plates and cuts are nearly all fac similes of well known figures, and are therefore as a rule, good. Still, we hardly think that Dr. Beale would be willing to accept plate V. as a fair representation of his idea of bioplasm, and he certainly would not be willing to admit that the wretched scrawl opposite page 200 was in any sense of the word a copy of the ganglionic nerve cell which he has described. So, too, Fig. 172 Plate XXIII., evidently intended to be a copy of the well known figure in Stricker, illustrating the structure of the infundibula of the lung, entirely misses the point and fails to give the idea intended to be conveyed by the original figure.

We cannot see what is gained by printing the figures in colors. The substance of the lung is not red even in life, neither is the tubule of the kidney. Neither can we see the advantage in printing them in expensive color, and then printing the titles in black, requiring two impressions, unless in-

deed the object is to make a striking page to catch the eye. Some of these colors positively misrepresent many of the structures which they are intended to show. We would, of course, not include in these remarks such plates as Plate II., which illustrates microscopic sections of minerals, and is a very fair specimen of color printing, nor Plate V., which is intended to illustrate some of Dr. Beale's views, if the execution had only been better. All the others however, in our opinion, would have been better in plain black, and the amount of money which has been used in printing them in colors had been expended in improving their character.

In conclusion, we would say that while the work is not altogether without merit and may be of use to some, more particularly those who desire to get a general idea of the subjects which it treats without engaging in practical work, yet for those who wish a treatise which shall give them help in the practical use of the instrument, we can hardly conceive of a book less useful. L. C.

THE THEORY AND PRACTICE OF MEDICINE, By *Frederick T. Roberts, M. D., B. Sc., M. R. C. P.* Second American from the last London edition, revised and enlarged. Philadelphia: *Lindsay & Blakiston.* 1876. Octavo pp. 920.

The first edition of this volume was fully reviewed at the time of its issue in this JOURNAL, so that at this time only a passing notice is necessary. We fully endorse the statement of the reviewer of that edition when he says that "so clear, terse and pointed is the style; so accurate the diction, and so varied the matter of this book, that it is almost a dictionary of practical medicine."

The present edition has been carefully revised, several subjects in great part re-written, and an earnest effort made to bring it up to the times. Among the valuable additions that have been made is the separate chapter on "The Diagnosis of Acute Specific Diseases." In this chapter, after a few remarks respecting febricula, he presents in the form of a table

the chief clinical features of the principal fevers prevalent in this country, and the diseases for which they are liable to be mistaken; and lastly briefly notices the more peculiar or less common specific diseases.

The chapter on "Diseases of the Skin" has been re-written and somewhat enlarged, and is a brief but very valuable discussion of the diseases that are likely to be met with in a medical practice.

In conclusion, we commend the book to the young student and busy practitioner as a faithful exposition of modern medical theory and practice. D. R. B.

THE ANATOMY OF THE HEAD WITH SIX LITHOGRAPHIC PLATES REPRESENTING FROZEN SECTIONS OF THE HEAD. By *Thomas Dwight, M. D.*, Professor of Anatomy at the Medical School of Maine, Instructor in Histology at Harvard University, Surgeon at the Carney Hospital and at the Boston Dispensary. Boston: *H. O. Houghton & Co.* 1876.

This little book of 136 pages is a very creditable work, indeed. Of course, Dr. Dwight could say little that was really new regarding the anatomy of the head, except as to the relative position of the several organs and structures. This he has done in his text somewhat, but in his excellent plates more. In anatomy and histology, pictures are great educators; they are good educators if they are true to nature. This is especially true of regional anatomy, the branch of the subject in which we most need instruction. These pictures of Dr. Dwight will be in some degree a surprise to every anatomist. The relations in every plate are different from those of the ideal picture anyone would draw—all of which proves that such a study of the subject as this book presents, was needed.

LECTURES ON THE PHYSICAL DIAGNOSIS OF DISEASES OF THE HEART, By *Arthur Earnest Sansom, M. D.*, London, etc. *I & A Churchill*, 1876. 12mo.; pp. 115.

We have read this book with great profit, but very little pleasure. With great profit because it is the work of a master hand, presenting in a strict and succinct style the leading prin-

ciples of the subject of which it treats. With very little pleasure, however, because of the cheap style in which the publishers have issued it. So miserable indeed is the typography, that few will read it without detriment to their eyes.

The volume opens with a "schema" which is the most concise and accurate summary of symptoms, signs and causes of disease of the heart we have ever seen. This is followed by a detailed description of the symptoms based upon a personal observation of one hundred typical cases of disease of the heart, specifying the number of cases in which each special symptom was present. He concludes this chapter by enunciating the important aphorism "that you have never made a complete examination of any patient, whatever his ailment, unless you have estimated as far as possible the condition of his heart."

The next section is devoted to Inspection, and this he begins with the axiom that "you can never make a satisfactory examination in suspected heart disease, unless your patient be stripped to the waist."

He classifies his observations by inspection under (1) hue of the surface, (2) cardiac dyspnœa, (3) œdema, and (4) pulsation. Under the latter heading he concisely states the fact, "that the area of visible pulsations may, however, be considerably increased; although there be no hypertrophy, in nervous palpitation, in some cases of anæmia, in Grave's disease, or in chorea, pulsation may be observed over a space the size of the palm of the hand; you will note however, in such cases, the apex beat is not displaced from its normal position, nor is the chest wall bulged outward."

Lectures follow devoted to palpation, percussion, and ascultation. In the last chapter he maintains with ability that the murmurs located at the apex or base in chorea are due to organic lesion of the mitral or aortic valves.

In conclusion we quote from the modest preface of the author that the "lectures were intended for those students who have mastered the rudiments of diagnosis and were qualifying themselves for careful observations in the hospital wards. It has been thought that they might prove useful also to practi-

tioners as presenting the essentials for the clinical recognition of Diseases of the Heart, according to the most modern views of cardiac pathology. The work is in no sense encyclopædic: It is intended to be suggestive, not exhaustive, and is founded as far as possible upon personal observation and experience." D. R. B.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by *Dr. H. Von Ziemssen.* Vol. V. Diseases of the Respiratory Organs. By *Prof. Juergensen*, of Tuebingen; *Prof. Hertz*, of Amsterdam; *Prof. Ruehle*, of Bonn; and *Prof. Rindfleisch*, of Wurtzburg, etc. *William Wood & Co.*

The authors of this volume and their writings, are so well known to the medical world as to need no comment, and this fact would make an extended review of this volume a work of supererogation.

Prof. Juergensen treats quite fully of croupous and catarrhal pneumonia, of hypostatic processes in the lungs, and of pneumonia from embolisms, its causes, diagnosis and treatment.

Prof. Hertz contributes articles on anæmia, hyperæmia and œdema, hemorrhages, atelectasis, atrophy, and hypertrophy of the lungs.

With regard to the latter, after stating the views of Laennec, Morgagni, Rokitansky, Virchow and others, he says: "We come, therefore, to the conclusion that hypertrophy of the lungs does not exist, and that what has hitherto been considered as such is really some other pathological condition."

Regarding the development of emphysema, the same author avoids controversy by accepting in a measure both of the theories as to respiratory pressure and lesions of nutrition.

Unfortunately he can give us nothing upon which to base a favorable prognosis as to the cure of the disease.

We find exhaustive articles by the same author on gangrene of the lungs, new growths in the lungs and mediastinum, and parasites in the lungs. Prof. Ruehle treats of pulmonary consumption and acute miliary tuberculosis, and sixty pages by

Prof. Rindfleisch are devoted to acute and chronic tuberculosis. This is an interesting article, illustrated by numerous plates. This is one of the best of the volumes of this cyclopædia.

Coughs, Consumption, and Diet in Disease. By *Horace Dobell*, M. D., F. R. M. C. S., etc. *D. C. Brinton.* Philadelphia, 1877.

This little work is made up of a series of extracts from the various published lectures of the author.

It is written in a clear and forcible style, and is founded upon an extensive experience which will render it a valuable acquisition to the literature of these subjects.

After treating of the diagnosis of phthisis, the author discusses the relations existing between bronchitis and emphysema, and details the history of neglected coughs. He dwells at considerable length upon the importance of post-nasal catarrh in the production of winter cough.

After trying a great number of applications in the form of spray, gargle, lotion, inhalation, snuff and lozenge, he has concluded that the best applications for this disease are,

1st. A medicated injection consisting of borax, ℥i.; glycerine of carbolic acid, ℥ii.; bicarbonate of soda, ℥i. to half a pint of warm water.

2d. A medicated snuff consisting of equal parts of camphor, tannic acid, white sugar and high-dried Welsh snuff.

3d. A medicated lozenge consisting of camphor gr. ii.; tannic acid, gr. ½; hydrochlorate of morphia, gr. $\frac{1}{36}$; white sugar, gr. x.; acacia gum, gr. ii.; and,

4th. A rubefacient liniment, to be rubbed behind the ears and on the back of the neck once or twice daily, for which purpose he recommends pure compound camphor liniment.

He devotes considerable space to the discussion of ear cough, an affection usually overlooked by physicians.

The latter part of the book is devoted to the subject of diet for the sick, and although it presents nothing new to those who have made a study of this subject, still it furnishes many suggestions which will be found very serviceable, especially to the younger members of the profession.

A Treatise on the Theory and Practice of Medicine. By John Syer Bristowe, M. D., London; edited by James H. Hutchinson, M. D., Philadelphia. Henry C. Lea, 1876.

A system of medical practice is a necessity for the student, and even for the practitioner, and yet, in these days of division of labor, the physician of extended reading sometimes wonders that one man who can hardly be supposed to be familiar with all the diseases in the nomenclature, should essay to write a book intended to comprehend the anatomy, pathology, etiology, treatment, etc., of all the disorders in the catalogue. And this impression, that the science and practice of medicine have developed beyond the mental reach of any one man, is deepened by the appearance of such encyclopædias, as Reynolds' system of medicine, Ziemssen's work, etc., as well as by a comparison of the very meagre article on, or mere reference to, certain diseases to be found in some of works on practice, with the elaborate monographs on the same subjects, by men familiar from long study and large experience with that of which they treat especially. It was not then with any particular satisfaction that we found on our table the new large octavo bearing the imprint, "*The Theory and Practice of Medicine, Bristowe.*" But, having scanned the volume with more than usual care, we are convinced that the author has accomplished the difficult task of adding another acceptable volume to the list of books on Theory and Practice, in a manner that will reflect credit upon himself, and prove of decided benefit to the profession.

This book has one particular charm and advantage. It is eminently inductive; it seems to have been intended by the writer as an educational book, such as a student needs, and just such as every practitioner who wishes to keep fresh in his mind the principles and practice of medicine, would be glad to have the opportunity to read *through*. The language, though not so graceful and flowing as that, of that modern classic Watson's Practice, is yet terse and clear, without having that measure of conciseness and condensation which continually taxes the attention and penetration of the reader.

The method of description of diseases is pleasing, it is not

over methodic—scholastic—but easy and natural; the current of the description not being interrupted by the artificial divisions common to didactic writers, but being from definition to treatment one continuous recital. The treatment with the exception of a few diseases with which, in all probability from want of opportunity of study, the writer is not familiar, seems to us judicious.

In regard to diseases as yet incurable, no long array of remedies are cited, on the contrary, we meet not unfrequently with expressions such as this: "It is not clear that any remedy exerts any, even the slightest, direct influence over the course of this disease." The author has evidently not considered it his province as a teacher to go beyond what is known in the matter of therapeutics. He is disposed, on the contrary, critically to regard the facts bearing upon the curative power of an agent, and candidly to state his convictions thereon. Upon the whole, we know of no work which we could more confidently recommend to the student or the practitioner, intending a review of the field of Theory and Practice, than this book of Dr. Bristowes.

We thus commend it, because the vast array of facts pertaining to the practice of medicine, as it is to-day, are here presented ably, and with that method, order and perspicuity which, in all departments of education, distinguish the lessons of an acceptable and profitable teacher.

Part I. embraces Etiology, Physiological Processes in Health, Physiological Processes in Disease, etc. These chapters contain an exposition of the various subjects fully up to the times; the author writing as one familiar from his own observation, with the more recent and important facts and theories bearing on this subject.

Part II. embraces special pathology, in which the diseases of the various organs are treated of in a systematic manner, and with as much thoroughness as would appear to be consistent with the plan of the work. Upon this section of the book we make the following comments:

The opinion that anasarca occurs more frequently, after mild than severe cases of scarlet fever, is endorsed by the author.

A convalescent from scarlatina should be confined to his room, either in bed or incased in flannels. The treatment by large doses of carbonate of ammonia receives a mere mention.

Opium is recommended for relieving the pains and mitigating the delirium of the stage of invasion of small pox, and especially during the secondary fever. Cow pox is not considered as identical with small-pox. As the discoverers of vaccination, reference is made to the school-master Plett, of Holstein, as having used vaccination in 1771, three years earlier than Benjamin Jesty. The author is of the opinion that scrofula and syphilis are occasionally inoculated by the use of vaccine from the arms of infected children. Specific contagious diseases are believed to depend upon living organism of a fungoid nature.

The resemblance between dengue and relapsing fever is pointed out, and the following query is put, "can the dandy fever be the relapsing fever modified by climate?"

Of epidemic cerebro-spinal meningitis, the author says, there can be little doubt that it is infectious. The chapter on diphtheria is headed "Diphtheria (Membranous Croup)" and he declares the diseases commonly described under these two heads to be one and the same disorder. As to the operation of tracheotony in diphtheritic croup, the author evidently endorses the maxim, "never operate too late; it is never too late to operate."

Typhoid fever is regarded as "*par excellence* the fever of fecal decomposition."

The treatment of cholera, as given by the author, is very unsatisfactory. He does not attach importance to the treatment of the premonitory diarrhœa. He confidently states his belief "that if a case be simple diarrhœa, it will not run into cholera, and if it be one of commencing cholera, there is no more ground for believing that it can be cut short, than that typhoid fever or whooping-cough may be." Will any physician who has passed through severe cholera epidemics, fail to pronounce these statements as false and full of danger?

From the chapter on syphilis, we extract the following sentence: "It is now established beyond doubt, * * * * *

that a person fully under the influence of the syphilitic poison, or who has had an attack from which he has recovered, very rarely, indeed, acquires a chancre, even when inoculated under the most advantageous circumstances, and even more rarely suffers in consequence from the secondary symptoms which so surely follow on the primary inoculation." How the first part of this statement can be made to tally with the fact that inoculations in the method of syphilization have been successfully repeated on the same syphilitic individual, hundreds and thousands of times, may be left to the judgment of the reader.

In the causation and history of ague, it is stated that the disease does not spread from a centre, successively invading town after town, and county after county. This statement is perhaps controvertible, as instances of such invasions are on record. The author denies the influence usually assigned to decaying vegetable matter as a cause of ague, and inclines to refer its origin to contagia similar in nature to those of infectious fever.

In the treatment of malarious fevers, the author seems to have in mind the management of the intermittent type mainly.

The directions, so far as the severe forms of malarial poisoning, remittent and pernicious fevers, are concerned, are entirely too meagre, and therefore defective and insufficient.

In the treatment of erysipelas, the author says: "Ammonia, camphor, iron, quinine, have all been employed in erysipelas, and all are recommended. It is questionable whether any one of them is of material use during the febrile stage of the disease." Certainly this declaration, so far as it refers to iron and quinine, will not receive the general endorsement of American physicians.

We find in the article on percussion this statement, which, we think, will meet the endorsement of many practitioners, and we are the more disposed to quote it, because the race of percussors who claim to be able to detect in the lungs "a tubercle no larger than a grain of wheat" may not yet be extinct. "But although marked dullness is always present when consolidation is extensive, and continuous, it is often absent, or at all events scarcely appreciable, either when an extensive tract of lung-tissue uniformly contains more solid matter or fluid, and

less air than natural, or when miliary or larger nodules of solid tissue, separated from one another by a network of crepitant tissue, are even thickly distributed. Thus congested or œdematous lungs, and lungs in the early stage of inflammation, on the one hand, and lungs which are the seat of disseminated tubercles or of lobular pneumonia on the other, are not unfrequently so strikingly resonant as utterly to deceive the too confiding percussor."

Bronchophony and pectoriloquy, are not regarded as mere grades of the same phenomenon. "Bronchophony never becomes converted into pectoriloquy. Bronchophony is the offspring of laryngeal intonation; pectoriloquy of the articulate sounds developed within the cavity of the mouth."

In the treatment of both laryngitis and tonsillitis, the author recommends opium as giving great relief—a recommendation which is here noticed because of our belief, that the misery of these diseases is frequently allowed by practitioners to go unassuaged, when a portion of morphine would greatly mitigate the distress.

In pleurisy, vocal fremitus is said to be suppressed over the dull areas. In the treatment of large pleuritic effusion, the author has little faith in the ordinary remedies, and inclines toward the early use of the trocar, when such interference seems called for.

The author is not disposed to adopt the view of Virchow, as regards tubercle; he is inclined to regard the miliary caseous forms as varieties of the same diseased product. The experiments of Villemin and others apparently showing the inoculability of tubercle; and also that tubercle may be developed by the injection of non-tuberculous matter, are regarded by the author as conclusive.

Our author, remarking upon spasm of the trachea says, how far this condition may be a matter of clinical importance is questionable. Dr. Bristowe believes, however, that when aneurismal or other tumors are compressing the trachea, and inducing from time to time spasmodic attacks of dyspnœa, the immediate cause of the difficulty of breathing is not unfrequently spasmodic contraction of the muscular tissue of the

compressed portion of the trachea, associated, it may be, with more or less hyperæmia, and accumulation of mucus.

Observation and study of attacks of dyspnœa occurring in children after tracheotomy for croup, have convinced us, that certain of these attacks, originating apparently from irritation of the trachea in changing the outer tube, while they are clearly spasmodic, are yet not referable to spasm of the trachea, but to spasm of the bronchioles, induced by the irritation of the parent trunk at the site of the wound. A careful study of the curious facts in the literature of tracheotomy having reference to spasmodic dyspnœa occurring during the "after treatment" or incident in some cases to attempts to remove the tube after restoration of the primarily diseased larynx, will, we think, corroborate this idea.

Dr. Bristowe unhesitatingly attributes Addison's Disease to tubercular infiltration of the suprarenal bodies.

Phlegmasia alba dolens, the author writes, "is due to thrombosis of the trunk veins of the limb, or of the larger veins to which these converge." To the reader bearing in mind the words of Fordyce Barker, "the relation which the thrombosis bears to phlegmasia dolens seems to me to be that of an effect rather than a cause," and again, "I believe that the blocking up of the veins by thrombosis is one of the conservative efforts of nature to promote recovery," such a declaration would seem positive beyond the facts.

In reference to delirium tremens, our author after saying, "recent inquiries show that it is the immediate consequence of excessive drinking," adds, "It may, no doubt, supervene at the time when such persons (excessive drinkers) are commencing to abstain, but not in consequence of their abstinence. This doctrine that mania a potu is not caused by abstracting drink from the drunkard has long had supporters in England, but we think few in this country hold it to be true. On the contrary, so far as our experience goes, it is universally admitted that delirium tremens is very often the direct result of withholding the usual supply of liquor. Dr. Bristowe refers to Dr. Locock, Gairdner, Wilks, Anstie and others, as now

maintaining that delirium tremens is a disease of low mortality, tending to get well of itself, and that opium is not only not needed, but that its use is attended with no inconsiderable danger. Is not the credit of first publishing these facts due to Dr. John Ware, of Boston? As to the treatment the author is quite unsatisfactory. After some good advice as to the general management of the patient, he continues: "Those who consider sleep indispensable would now administer either chloral or some preparation of opium. The chloral is sometimes given with advantage in doses of from ten to twenty grains every half hour till sleep is induced. Opium or morphia may also be given in comparatively small doses at short intervals. It is better, however, we believe, to administer it from the beginning in large doses, and to repeat it or not, according to its effects; to give for example from half a grain to a grain of morphia, or from a half a drachm to a drachm of laudanum at once, and to repeat the medicine in smaller doses at intervals of an hour or two, if sleep be not induced. It may be well to add that patients with delirium tremens are difficult to bring under the influence of narcotics." We object to these directions, qualified as they are by what precedes in the text, as tending to too free use of the articles mentioned. In some cases the repetition of opium, even in comparatively small doses at short intervals till sleep is induced, which, according to Dr. Ware, might be five or seven days, might not be free from danger. Under the old theory of "sleep or death," we remember one case in which a tablespoonful of laudanum was repeated every half an hour, for some time, without inducing sleep, until suddenly the respirations fell to seven per minute, coma and death speedily following. To the writer who once collected statistics of some 250 cases of delirium tremens treated by "opium and the straight jacket," 33 per cent. of which proved fatal, even the guarded recommendation of the narcotic, here quoted, savors of danger.

In acute gastritis, the author recommends opiates in large doses preferably, subcutaneously.

In noting the several modes of onset in peritonitis, that by intense shock or collapse is omitted; though further on it is

said: "Even in the early stage of the disease, when the pulse is little accelerated and sharp, perhaps strong, a little over-exertion, or some unwonted effort may induce dangerous collapse." And again, in speaking of peritonitis, he says: "In the course of the disease, extreme and immediate collapse may occur, so that the symptoms may simulate those of fatal intestinal hemorrhage, or of rupture of an aneurism, or of the heart, or of cholera, fatal without emesis or purgation." In referring to the results of an attack of peritonitis, the author remarks: "In some cases, slowly contracting adhesions compress a length of bowel, and render it practically impervious." In speaking of the pathology of rheumatism, Dr. Bristowe asks: "Is it a local disease, or a constitutional disease?" and in answer to the query he says: "It seems to us that there is little or nothing in rheumatism in respect of its proximate cause, to distinguish it from pneumonia, bronchitis, nephritis, erysipelas, or other examples of local inflammations caused by exposure to cold, or cognate conditions.

In regard to tape-worm, the author repeats the statement generally found in the book, that the tænia solium is one of the most common of human tape-worms, remarking, however, that the tænia mediocanellata which was formerly confounded with T. solium, is equally common. In the observation of the writer, only one case of tænia solium has been noted in a series of 40 cases, of which 38 were T. mediocannellatæ. The author declares that the symptoms produced by tape-worm, are, upon the whole, trivial and unimportant, many of those infected, enjoying perfectly good health. This is a statement much needed, though it should have been added that the direst symptoms, attributed to tape-worm, occasionally actually depend upon it. No reference is made to an increasing frequency in the occurrence of these parasites, whereas in this city it is probable that patients suffering from tape-worm are met with ten times as frequently as formerly. In treating of thread-worms, the author says, local measures are usually amply sufficient for the riddance, such as strong infusion of green tea, etc., this statement contrasts strongly with that of practitioners, who declare the eradication of these pests next to impossible. J. B.

BOOKS AND PAMPHLETS RECEIVED.

On the Nomenclature and Classification of Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D.

Restriction and Prevention of Scarlet Fever. Document issued by the State Board of Health of Michigan.

Demilt Dispensary Department of Diseases of the Skin.

Classification of Diseases of the Skin.

Tracheotomy in Diphtheria. By J. H. Pooley, M. D.

The Woman's Hospital in 1874. A reply to the printed circular of Drs. E. R. Peaslee, T. A. Emmet, and T. Gaillard Thomas, addressed "To The Medical Profession," May 5th. By J. Marion Sims, M. D.

The Woodruff Scientific Expedition Around the World. 1877–79.

Report of the Board of Health of Quincy, Illinois. For the year ending March 31, 1877.

Twenty-Eighth Annual Announcement of the Woman's Medical College of Pennsylvania, Phila., 1877-78

Review of Dr. Squibb's Proposed Plan for the Future Revision of the U. S. Pharmacopœia, being a special report upon this subject. By the Committee of National College of Pharmacy, Washington, D. C., at a special meeting, held May, 28, 1877.

Titles of the Acts of the Thirteenth General Assembly of the State of Illinois, Approved or Vetoed by the Governor. Also a list of the Members of State Educational, Charitable and Penal Institutions, and the Canal and Railroad and Warehouse Commissioners.

The Model Physician and Model Patient. A Valedictory Address Delivered in Wieting Hall, Syracuse, Feb. 19th, 1875. By H. D. Didama, M. D.

Transactions of the Pathological Society of Philadelphia, for 1875--6.

An Elementary Treatise on Practical Chemistry and Quantitative Inorganic Analysis, etc. By Frank Clowes, D. Sc., etc., etc. Philadelphia. H. C. Lea. 1877.

Transactions of the American Gynecological Society. Vol. I. For the year 1876.

Guy's Hospital Reports. Series III. Vol. XXII, 1877.

Disease of the Mind. By Chas. F. Folsom, M. D.

Medical and Surgical Reports of the Boston City Hospital.

Surgical Observations with Cases and Operations. By J. Mason Warren, M. D., 1877.

Ziemssen's Cyclopædia of the Practice of Medicine. Vol. XII. Diseases of the Nervous System. Vol. XV. Diseases of the Kidney.

Notes on the Epidemiology of Ohio. By Thomas C. Minor, M. D.

Scarlatina Statistics of the United States. By Thomas C. Minor, M. D.

The Association of American Medical Colleges. History of its Organization, its Constitution, By-laws, Articles on Confederation, and List of Members. 1877.

The Specialty of Diseases of Women. By Clifton E. Wing, M. D.

Syphilitic Phthisis. A paper read before the Missouri State Medical Association. By Wm. Porter, M. D.

A Case of Abdominal Pregnancy Treated by Laparotomy. By T. Gaillard Thomas, M. D.

The Prophylactic Treatment of Placenta Prævia. By T. Gaillard Thomas, M. D.

Pus in Ovarian Fluids. By James R. Chadwick, M. D.

Alcohol as a Food and Medicine. A Paper from the Transactions of the International Medical Congress. By Ezra M. Hunt, M. D.

On the Diagnosis of Urethral Stricture by Bulbous Bougies, with Illustrative Cases. By J. William White, M. D.

Report of Management of the Insane, of Great Britain. By H. B. Wilbur, M. D.

Viburnum Prunifolium (Black Haw). Its Use in the Treatment in the Diseases of Women. By Edward W. Jenks, M. D.

Calculi Found in the Bladder after the Cure of Vesico-Vaginal Fistula. By Henry F. Campbell, M. D.

History of a Case of Recurring Sarcomatous Tumor of the Orbit in a Child. Illustrated by Thomas Hay, M. D.

Practical Points in the Electrolytic Treatment of Cystic and Fibroid Tumors. By George M. Beard, M. D.

Pneumatic Selef—Replacement of the Gravid and Non-Gravid Uterus. By H. F. Campbell, M. D.

Cholera: The Laws of its Occurrence, Non-occurrence, and its Nature. By C. Sprinzig, M. D.

Note on Inherited Effects of Lesions of the Sympathetic Nerve and Corpora Restiformia on the Eye. By Eugene Dupuy.

Transactions of the Nebraska State Medical Society, at its Sixth, Seventh and Eighth Annual Meetings.

First Annual Report of the State Board of Health of the State of Wisconsin, 1876.

Thirty-Fifth Annual Announcement of Rush Medical College, Chicago 1877-78.

The Detroit Medical College Announcement and Catalogue, 1877-78.

The Annual Announcement of the Department of Medicine and Surgery of the University of Michigan for 187-778.

Thirteenth Annual Report of the Board of Managers of the Washingtonian Home of Chicago.

On Albumen in the Treatment of Pulmonary Consumption. By E. L. Shurly, M. D., etc. 1877.

What is the Comparative Physiological and Therapeutic Action of Free Phosphorus and the Hypophosphites? An Essay to which the "Merrit H. Caste" Prize was awarded by the New York State Medical Society. By Samuel P. Percy, M. D.

Rare Forms of Umbilical Hernia in the Fœtus. By James R. Chadwick, M. D., etc.

The Discovery of Anæsthesia. By J. Marion Sims, M. D., etc.

Labor complicated with Uterine Fibroids and Placenta Previa. By James R. Chadwick, M. D., etc.

Two cases of Morphœa: with remarks on the disease and its differential diagnosis. By L. Duncan Bulkley, M. D.

Medical News and Items.

ILLINOIS STATE BOARD OF HEALTH.

We print in this issue two bills passed by the last Legislature of our State, in which the people and the medical profession are deeply interested. In fact it is the commencement of a new era,—a new departure it may be said,—and we have no doubt that if the spirit and intent of both acts are carried out by the State Board of Health with prudence and judgment, much good will result. We learn from the President of the State Board of Health, that the Medical Practice Act is already having a beneficial effect; the title of Doctor has been removed from signs, others have retired from practice and the city, and daily he receives communications asking all sorts of questions with regard to the law.

The Governor has appointed the following named gentlemen members. They are placed in the order in which they drew their respective terms of office:

Newton Bateman, LL. D., Galesburg; R. Ludlam, M. D., Chicago; A. L. Clark, M. D., Elgin; W. M. Chambers, M. D., Charleston; J. M. Gregory, LL. D., Champaign; John H. Rauch, M. D., Chicago; Horace Wardner, M. D., Cairo.

Taking all things into consideration, we do not hesitate to say that the appointments are as good as could be expected under the circumstances. A weighty responsibility rests upon them, and we sincerely hope they appreciate it.

At the meeting held at Springfield on the 12th ult., after taking the oath of office, Dr. J. H. Rauch, of Chicago, was unanimously elected President and Acting Secretary. After carefully examining the laws, and getting such assistance from the Attorney General, in learning the scope of duty and power of both acts as was at the time necessary, they adjourned to meet in Chicago on the 23d, for the purpose of completing the organization.

In order to carry out both laws, and make them effective, it is absolutely necessary that the profession heartily co-operate with the Board. Why should not all medical men in good standing, whether they come within the provisons of the law or not, take a certificate from the Board, and have it placed upon record in the County Clerk's office, so that hereafter the question with regard to any one engaged in the practice of medicine in this State, will be whether he is on record or not. Such action will no doubt, assist materially in carrying out the Medical Practice Act.

We understand that the utmost harmony prevails in the Board, and we sincerely hope such may always be the case. The subject of registration will occupy the attention of the Board first, and this once fairly under way, examinations of persons practicing without license or diploma will be the order, also the investigation of important sanitary questions.

From what we know of the character of the Board, we would advise all who have no diplomas, and are engaged in practice, to make good use of all the time they have in preparation for the examination. Not that we believe the examinations will be unduly severe, but think they will be of an elementary and practical character, and sufficiently strict to test the qualifications of the candidates as practitioners. Inquiry will also be made into the moral standing of the candidates.

At the meeting of the Board on Monday, July 23, in Chicago, all the members being present, reports of committees were received and adopted, among them the following:

To the President and Members of the Illinois State Board of Health:

Your committee appointed on the 12th of July, to prepare a programme for examinations of applications for certificates to practice medicine, and for the verification of diplomas, beg leave to recommend the following list of dates and places for meetings of the Board for those purposes:

Chicago—Thursday, November 1st, beginning at 9 o'clock A. M., at the Grand Pacific Hotel.

Cairo—Thursday, November 15th, beginning at 9:30 A. M., at the office of Dr. Wardner, No. 111 Commercial avenue.

Galesburg—Thursday, December 6th, beginning at 10 A. M., at the Union Hotel.

Champaign—Thursday, December 20th, beginning at 10 A. M., in the parlors of the Industrial University.

Springfield—Thursday, January 10, 1878, at 10 A. M., at the State House (the regular annual meeting).

The committee recommend that notice of these meetings be early circulated among the profession through the public press, medical journals, and such other notices as may be deemed advisable. [Signed,] H. WARDNER,
A. L. CLARK,
R. LUDLAM.

NOTE.—Charleston, Coles county, was subsequently added to the list.

A committee was appointed to prepare a circular for distribution, including laws, setting forth work of the Board, with instructions as to examinations, certificates, and inviting co-operation of medical men throughout the State. The forms of certificates were agreed upon, also the seal. A committee. with power to act, was appointed to prepare all the blanks for registration.

In the afternoon the Board, accompanied by a number of the officials, and other representative men of the city, made an inspection of the Chicago river and the crib.

In the evening another meeting was held, at which Dr. E. W. Gray, of Bloomington, was elected Secretary, and Dr. Wardner, elected Treasurer. An auditing committee, and one to draft rules for the government of the Board, were appointed.

On Tuesday, the Board went to the Union Stock Yards, and while there inspected some of the slaughtering and fertilizing establishments.

On Tuesday afternoon, July 24th, another meeting was held, when, on motion of Dr. Chambers, it was agreed to address a circular to all the cities and towns in the State, for the purpose of ascertaining what local health organizations, and what health ordinances are in force in the respective localities. After considering various other subjects, the Board adjourned subject to the call of the President

The following is a full copy of the act to Regulate the Practice of Medicine in the State of Illinois. Approved May 29, 1877. In force July 1, 1877.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the General Assembly*, That every person practicing medicine, in any of its departments, shall possess the qualifications required by this act. If a graduate in medicine, he shall present his diploma to the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners herein named, for verification as to its genuineness. If the diploma is found genuine, and if the person named therein be the person claiming and presenting the same, the State Board of Health, if such Board of Health shall be established by law, or the Board of Examiners, shall issue its certificate to that effect, signed by all the members thereof, and such diploma and certificate shall be conclusive as to the right of the lawful holder of the same to practice medicine in this State. If not a graduate, the person practicing medicine in this State shall present himself before said Board, and submit himself to such examination as the said Board shall require; and, if the examination be satisfactory to the examiners, the said Board shall issue its certificate in accordance with the facts, and the lawful holder of such certificate shall be entitled to all the rights and privileges herein mentioned.

SEC. 2. In case a State Board of Health shall not be established by law, then each State Medical Society incorporated and in active existence on the first day of July, eighteen hundred and seventy-seven, whose members are required to possess diplomas or license from some legally chartered medical institution in good standing, shall appoint, annually, a Board of Examiners consisting of seven members, who shall hold their office for one year, and until their successors shall be chosen. The examiners so appointed shall go before a County Judge and make oath that they are regular graduates, or licentiates, and that they will faithfully perform the duties of their office. Vacancies occurring in a Board of Examiners shall be filled by the society appointing it by the selection of alternates, or otherwise.

SEC. 3. The State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall organize within three months after the passage of this act, they shall procure a seal, and shall receive through their Secretary applications for certificates and examinations, the president of each Board shall have authority to administer oaths, and the Board take testimony in all matters relating to their duties, they shall issue certificates to all who furnish satisfactory proof of having received diplomas, or licenses from legally chartered medical institutions in good standing, they shall prepare two forms of certificates, one for persons in possession of diplomas or licenses, the other for candidates examined by the Board, they shall furnish to the county clerks of the several counties a list of all persons receiving certificates. In selecting places to hold their meetings they shall, as far as is reasonable, ac-

commodate applicants residing in different sections of the State, and due notice shall be published of all their meetings. Certificates shall be signed by all the members of the Board granting them, and shall indicate the medical society to which the Examining Board is attached.

SEC. 4. Said State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall examine diplomas as to their genuineness, and if the diploma shall be found genuine as represented, the Secretary of the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall receive a fee of one dollar from each graduate or licentiate, and no further charge shall be made to the applicants; but if it be found to be fraudulent, or not lawfully owned by the possessor, the Board shall be entitled to charge and collect twenty dollars of the applicant presenting such diploma. The verification of the diploma shall consist in the affidavit of the holder and applicant that he is the lawful possessor of the same, and that he is the person therein named. Such affidavit may be taken before any person authorized to administer oaths, and the same shall be attested under the hand and official seal of such officer, if he have a seal. Graduates may present their diplomas and affidavits as provided in this act, by letter or by proxy, and the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall issue its certificate the same as though the owner of the diploma was present.

SEC. 5. All examinations of persons not graduates or licentiates, shall be made directly by the Board, and the certificates given by the Boards shall authorize the possessor to practice medicine and surgery in the State of Illinois.

SEC. 6. Every person holding a cerificate from the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners shall have it recorded in the office of the clerk of the county in which he resides, and the record shall be indorsed thereon. Any person removing to another county to practice shall procure an indorsement to that effect on the certificate from the county clerk, and shall record the certificate, in like manner, in the county to which he removes, and the holder of the certificate shall pay to the county clerk the usual fees for making the record.

SEC. 7. The county clerk shall keep, in a book provided for the purpose, a complete list of the certificates recorded by him, with the date of the issue and name of the medical society represented by the State Board of Health, if such Board of Health shall be established by law, or Board of Examiners issuing them. If the certificate be based on a diploma or license, he shall record the name of the medical institution conferring it, and the date when conferred. The register of the county clerk shall be open to public inspection during business hours.

SEC. 8. Candidates for examination shall pay a fee of five dollars, in advance, which shall be returned to them if a certificate be refused. The fees received by the Board shall be paid into the treasury of the medical society by which the Board shall have been appointed, and the expenses

and compensation of the Board shall be subject to arrangement with the society.

SEC. 9. Examinations may be in whole, or in part in writing, and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

SEC. 10. The State Board of Health, if such Board of Health be established by law, or Board of Examiners may refuse certificates to individuals guilty of unprofessional or dishonorable conduct, and they may revoke certificates for like causes. In all cases of refusal or revocation the applicant may appeal to the body appointing the board.

SEC. 11. Any person shall be regarded as practicing medicine within the meaning of this act, who shall profess publicly to be a physician and to prescribe for the sick, or who shall append to his name the letters of "M. D." But nothing in this act shall be construed to prohibit students from prescribing under the supervision of preceptors, or to prohibit gratuitous services in cases of emergency. And this act shall not apply to commissioned surgeons of the United States army and navy.

SEC. 12. Any itinerant vender of any drug, nostrum, ointment, or appliance of any kind, intended for the treatment of disease or injury, or who shall, by writing or printing, or any other method, publicly profess to cure or treat diseases, injury, or deformity by any drug, nostrum, manipulation or other expedient, shall pay a license of one hundred dollars a month, to be collected in the usual way.

SEC. 13. Any person practicing medicine or surgery in this State without complying with the provisions of this act, shall be punished by a fine of not less than fifty dollars, nor more than five hundred dollars, or by imprisonment in the county jail for a period of not less than thirty days nor more than three hundred and sixty-five days, or by both such fine and imprisonment, for each and every offense; and any person filing or attempting to file, as his own, the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and, upon conviction shall be subject to such fine and imprisonment as are made and provided by the statutes of this State for the crime of forgery, but the penalties shall not be enforced till on and after the thirty-first day of December, eighteen hundred and seventy-seven; *Provided*, That the provisions of this act shall not apply to those that have been practicing medicine ten years within this State.

The act to establish a State Board of Health, reads as follows:

SECTION 1. *Be it enacted by the People of the State of Illinois, represented in the General Assembly*, That the Governor, with the advice and consent of the Senate, shall appoint seven persons who shall constitute the Board of Health. The persons so appointed shall hold their offices for seven years; *Provided*, That the terms of office of the seven first appointed shall be so arranged that the term of one shall expire on the thirtieth day of December of each year, and the vacancies so created, as well as all vacancies oc-

curring otherwise, shall be filled by the Governor, with the advice and consent of the Senate; *And Provided, also*, That appointments made when the Senate is not in session, may be confirmed at its next ensuing session.

SEC. 2. The State Board of Health shall have the general supervision of the interests of the health and life of the citizen of the State. They shall have charge of all matters pertaining to quarantine; and shall have authority to make such rules and regulations, and such sanitary investigations as they may from time to time deem necessary for the preservation or improvement of public health, and it shall be the duty of all police officers, sheriffs, constables, and all other officers and employes of the State, to enforce such rules and regulations, so far as the efficiency and success of the Board may depend upon their official co-operation.

SEC. 3. The Board of Health shall have supervision of the State system of registration of births and deaths as hereinafter provided; they shall make up such forms, and recommend such legislation as shall be deemed necessary for the thorough registration of vital and mortuary statistics throughout the State. The Secretary of the Board shall be the Superintendent of such registration. The clerical duties, and the safe-keeping of the bureau of vital statistics thus created shall be provided by the Secretary of State.

SEC. 4. It shall be the duty of all physicians and accoucheurs in this State, to register their names and post-office address with the County Clerk of the county where they reside; and said physicians and accoucheurs shall be required, under penalty of ten dollars, to be recovered in any Court of competent jurisdiction in the State, at suit of the County Clerk, to report to the County Clerk, within thirty days from date of their occurrence, all births and deaths which may come under their supervision, with a certificate of the cause of death, and such correlative facts as the Board may require, in the blank forms furnished as hereinafter provided.

SEC. 5. Where any birth or death shall take place, no physician or accoucheur being in attendance, the same shall be reported to the County Clerk within thirty days from date of their occurrence, with the supposed cause of death, by the parent, or if none, by the nearest of kin not a minor, or if none, by the resident householder where the death shall occur, under penalty as provided in the preceding section of this act.

SEC. 6. The Coroners of the several counties shall be required to report to the County Clerk, all cases of death which may come under their supervison, with the cause and mode of death, etc., as per forms furnished, under penalty as provided in section four (4) of this act.

SEC. 7. All amounts recovered under the penalties herein provided, shall be appropriated to a special fund for the carrying out the object of this law.

SEC. 8. The County Clerks of the several counties in the State shall be required to keep separate books for the registration of the names and post-office address of physicians and accoucheurs, for births, for marriages, and for deaths; said books shall always be open to inspection without fee; and said County Clerks shall be required to render a full and complete

report of all births, marriages and deaths, to the Secretary of the Board of Health, annually, and at such other times as the Board may direct.

Sec. 9. It shall be the duty of the Board of Health to prepare such forms for the record of births, marriages and deaths, as they may deem proper; the said forms to be furnished by the Secretary of said Board to the County Clerks of the several counties, whose duty it shall be to furnish them to such persons as are herein required to make reports.

Sec. 10. The first meeting of the Board shall be within fifteen days after their appointment, and thereafter in January and June of each year, and at such other times as the Board shall deem expedient. The meeting in January of each year, shall be in Springfield. A majority shall constitute a quorum. They shall choose one of their number to be President, and they may adopt rules and by-laws for their government, subject to the provisions of this act.

Sec. 11. They shall elect a Secretary who shall perform the duties prescribed by the Board; and by this act, he shall receive a salary which shall be fixed by the Board, he shall also receive his traveling and other expenses incurred in the performance of his official duties. The other members of the Board shall receive no compensation for their services, but their traveling and other expenses, while employed on the business of the Board, shall be paid. The President of the Board shall quarterly certify the amount due the Secretary, and on presentation of his certificate, the Auditor of State shall draw his warrant on the Treasurer for the amount.

Sec. 12. It shall be the duty of the Board of Health to make an annual report through their Secretary, or otherwise, in writing to the Governor of this State, on or before the first day of January of each year; and such report shall include so much of the proceedings of the Board, and such information concerning vital statistics; such knowledge respecting diseases, and such instruction on the subject of Hygiene, as may be thought useful by the Board, for dissemination among the people with such suggestions as to legislative action, as they may deem necessary.

Sec. 13. The sum of five thousand dollars ($5,000), or so much thereof as may be necessary, is hereby appropriated to pay the salary of the Secretary, meet the contingent expenses of the office of the Secretary, and the expenses of the Board, and all costs for printing, which together shall not exceed the sum hereby appropriated; said expenses shall be certified and paid in the same manner as the salary of the Secretary.

Sec. 14. The Secretary of State shall provide rooms suitable for the meetings of the Board, and office-room for the Secretary.

Michigan State Board of Health.—The regular meeting of this Board was held at Lansing on July 10.

Dr. Kedzie made a short report on the chemical examination of a specimen of cheese believed to have caused sickness

in several families. He examined it for all the mineral poisons, but found none. He concluded that the poison must be organic in its nature, and that it might come from one of three causes. 1st, diseased milk; 2d, chemical decomposition of the cheese after it was made; and 3d, bad rennet. This poisoning by cheese being so common, he was authorized to visit various cheese factories and further investigate the subject.

Dr. Kedzie made a report on illuminating oils, in which he stated that the legislature had maintained the standard flash test of 140° F., and had provided a chill test for paraffine, which will require an improved quality of oil.

Dr. Lyster sent a communication in relation to the small-pox in Detroit. The total number of cases reported for the year ending June 30, was 278, and the number of deaths, 113. He pointed out the fact that this preventable disease had been allowed to prevail in Detroit for a full year, but at the present time the authorities are taking active measures to prevent the spread of this loathsome disease. He urged the adoption of a resolution for vaccination throughout the State. The Board adopted the following:

WHEREAS, by means of vaccination and revaccination the people may secure complete immunity from small-pox,

Resolved, That all local boards of health be advised and requested to direct their health physicians to offer every year vaccination with bovine vaccine virus to every child not previously vaccinated, and to all other persons not vaccinated within five years, without cost to the vaccinated, but at the general expense of the locality, as provided for townships in section 1,736, compiled laws, 1871.

Mr. Parker was asked to attend the meeting of the American Social Science Association, which meets at Saratoga, Sept. 4; and Dr. Hitchcock was asked to attend the annual meeting of the American Association for the Cure of Inebriates, which meets in Chicago, and report anything of interest or value on the subject of public health.

LIBRARY OF THE MEDICAL PRESS ASSOCIATION. *A Card from the Librarian.*—At the June meeting of the directors of the

Association, the librarian was authorized to circulate the current medical periodicals to such physicians in the city as were willing to make a small subscription for the privilege. Arrangements are now perfected for carrying out this scheme, and a number of physicians have already entered their names on the list of subscribers. Each subscriber receives regularly any six journals he may select from a list of over a hundred, and is allowed to retain each copy five days, so that he has a new journal for reading every five days throughout the year.

It is expected that soon the library will receive a considerable number of medical periodicals, in addition to the present list, so that subscribers to the circulation of journals may be more certain to have just what they wish.

Physicians desiring to avail themselves of the advantages offered, may enter their names with the assistant librarian at the library, 188 Clark street, any day from 10 to 4 o'clock. If at the same time they will designate the journals to be sent them, they will receive the same regularly thereafter.

July 11, 1877. NORMAN BRIDGE, *Librarian.*

PHYSICIANS WANTED.—Two good places are in need of young, qualified, energetic physicians. One place is in Iowa, and the other is in Nebraska. For particulars, apply to Dr. J. H. Etheridge, 603 Michigan Ave., Chicago.

PROFESSOR EDWIN POWELL sailed for Europe on the 28th ult., in execution of a purpose long entertained of devoting some time to professional study in the hospitals of London and Paris.

CENTRAL FREE DISPENSARY OF WEST CHICAGO, corner Wood and Harrison streets. The report for June shows a total number of patients, 712; number of visits of patients to the dispensary, 2,162; number of visits to the homes of patients, 227; total number of visits, 2,391; number of prescriptions furnished, 2,008; number of vaccinations, 5.

List of changes in the medical corps of the U. S. Marine Hospital Service for June, 1877.

Removed. A. B. Bancroft, surgeon in charge of hospital at Chelsea, Mass., has, after a full hearing, been removed, as recommended by the board of surgeons who lately investigated the management of that hospital.

Resigned. Ralph N. Isham, surgeon. Resigned at Chicago, Illinois, to take effect July 1, 1877.

Promoted. J. B. Hamilton, assistant surgeon. Promoted surgeon vice Bancroft, removed.

Truman W. Miller, assistant surgeon. Promoted surgeon vice Isham, resigned.

Appointed. Francis H. Brown, of Massachusetts, appointed assistant surgeon vice Hamilton, promoted.

John Godfrey, of Alabama, appointed assistant surgeon vice Miller, promoted.

Ordered. Hamilton, J. B., assistant surgeon. To proceed from New York, N. Y., to Boston, Mass., and take temporary charge of the U. S. Marine Hospital at Chelsea, Mass.

Fisher, John C., assistant surgeon. To proceed from New York, N. Y., to Chicago, Ills., and report for duty to Surgeon T. W. Miller.

Brown, Francis H., assistant surgeon. To report to Surgeon Heber Smith, for temporary duty at the port of New York.

Re-vaccination.—The following quotations, in defense of re-vaccination, are from a letter of Dr. Henry A. Martin, of Boston—probably the best authority on the subject in the United States.

"Is secondary vaccination, (or re-vaccination) any protection against small pox or varioloid? Yes, an absolute and perfect protection. A person properly vaccinated in infancy, and re-vaccinated with perfect virus in adult life (after 15 years of age) with vaccinal effect, (*i. e.*, more or less perfect approach to a typical primary vaccine vesicle) is absolutely and perfectly protected from the small-pox or varioloid in any form or degree for the rest of life, excluding the 14 days after re-vaccination was done. * * * ."

"The infinite rarity of occurrence of cases of varioloid or small-pox after such vaccination and re-vaccination, does not at all invalidate or in any way affect the general rule of complete protection, by a successful re-vaccination in adult life. The protection afforded by a perfect vaccination in infancy, with virus not too far removed from the cow, is absolute till the age of 10, nearly so till that of 15. During the wonderful change from childhood to adult life, this protection is more or less rapidly and completely impaired. It is not probable, theoretically, that the effect of good primary vaccination, even in infancy, is ever entirely lost, but in many, practically, it is so."

"Individuals, successfully vaccinated for the first time at 10 years, are generally protected for life; those first vaccinated at 5, or even four years of age, often are so. After the first dentition is passed, every additional month of age adds many months to the permanence of his protection."

"I have more than once seen perfectly defined variola (unmodified small-pox) within a few months after the operation of vaccination was nominally done, but not after true vaccination. All this class of cases are explained"

"1. By patients having already in their systems the germ of small-pox.

"2. By the use of virus so utterly enfeebled by long and careless human transmission as to be very imperfectly protective.

"3. By the use of something (pus, serum, blood, decomposed animal matter, etc.) as vaccine virus, which is not vaccine virus at all, which often, however, produces a sore arm, and sometimes even an imperfect resemblance to true vaccinia."

"If perfect vaccination is done on a person within 3 days after exposure to small-pox, the latter disease is very much modified, often entirely prevented. If from 4 to 6 days have elapsed, it is very doubtful whether the vaccination exercises any modifying effect. It certainly does not prevent the development of small-pox, and if the latter disease has the start by more than 6 days, vaccination has no effect, either modifying or preventive."

"The animal vaccination is the perpetuation of true, original cow-pox, from the original case to a young, selected heifer; from that to another, in endless series, as a source of vaccine virus. This method was introduced into America by the writer in September, 1870. It is quite safe to say that very few persons have been vaccinated in the United States or Canada, during the last five years, with any other than this virus, direct from the heifer, or of very early removes therefrom. However imperfectly appreciated as yet, the vast benefit of this reform will, by and by, be as evident as the sun at noonday. By true animal vaccination, all dangers, real or imaginary, of the transmission of syphilis, or other human diseases, are entirely removed. All the absurd rumors and threatenings of transmission of animal diseases other than cow pox have been proved, now, as in the time of Jenner, utterly fallacious."—*Lowell Daily Citizen.*

Transfusion.—A case of unusual interest occurred recently at the London Hospital. Mr. James E. Adams, F. R. C. S., was removing the lower limb, at the hip joint, from a boy twelve years of age, when, during the progress of the operation, alarming symptoms of collapse occurred, and the patient seemed about to sink from exhaustion. The operator immediately proposed to personally supply blood by transfusion, and more than eight ounces of blood were injected from his arm into that of the patient, with most beneficial results. Mr. Adams afterwards completed the operation, and the boy is at present progressing favorably.

Boylston Medical Prize Questions.—The following are the questions proposed for 1878:

1. Antiseptic Treatment. What are its essential details. How are they best carried out in practical form?

2. Diphtheria. Its causes, diagnosis, and treatment.

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1878, will be entitled to a premium of seventy-five dollars.

Dissertations on the above subjects must be transmitted post-paid, to J. B. S. Jackson, M. D., Boston, *on or before the first Wednesday in April*, 1878.

The following are the questions proposed for 1879:

I. The relation of animal contact to the disease known as Hydrophobia.

II. Evidences showing that so-called "filth diseases" are not dependent upon "filth."

The author of a dissertation considered worthy of a prize on either of the subjects proposed for 1879, will be entitled to a premium of two hundred dollars.

Dissertations on these subjects must be transmitted as above, on or before the first Wednesday in April, 1879.

Each dissertation must be accompanied by a sealed packet on which shall be written some device or sentence, and within which shall be inclosed the author's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

The writer of each dissertation is expected to transmit his communication to the President of the Committee, J. B. S. Jackson, M. D., in a distinct and plain handwriting, *and with the pages bound in book form*, within the time specified.

Any clew by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition.

Preference will be given to dissertations which exhibit original work.

All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

Mortality in the City of Chicago, During the Four Weeks, Ending July 21, 1877.—Total number of deaths, 913; males, 479; females, 434; under one year of age, 437. Principal causes of death: Accidents, 20; bronchitis, 7; pleurisy, 4;

pneumonia, 20; phthisis pulmon. 60; diarrhœa, 45; dysentery, 17; cholera infantum, 189; convulsions, 113; meningitis, 34; heart disease, 10; measles, 12; scarlatina, 60; diphtheria, 12.

Summary.

Practical Medicine.

Aneurisms on the Terminal Branches of the Pulmonary artery. B. Bramwell. (*Edinburg Med. Journal*, May.) B. reports two cases of fatal hæmoptysis, in which the condition of the lungs, at post mortem examination, seemed to confirm the statements of Rasmussen and others, that in many instances, the source of the hæmorrhage is a ruptured aneurism of a terminal branch of the pulmonary artery.

The first patient, a colored man, æt. 21, suffered from extensive pulmonary disease, more marked on the right than on the left side.

While in hospital, he had three terrible attacks of hæmorrhage, expectorating on each occasion between thirty and forty ounces. The man died some thirty hours after the last bleeding. At the autopsy was found extensive tubercular disease of both lungs. The right apex was hollowed out into a cavity the size of an orange. At the inferior part of this cavity, the walls of which were dense and cicatricial, there was a small aneurism the size of a pea. It was unruptured and was situated on a minute branch of the pulmonary artery. A second smaller cavity in the middle of the lung was filled with coagulated blood, partly recent, partly old and discolored.

A second aneurism, the size of a cherry, was found in the cavity. The aneurism had ruptured, by a slit-like opening, about three lines in length.

This aneurism was evidently the source of the hæmorrhage. Firmly adherent to the outer surface of the sac, and partly blocking the ruptured orifice, was a portion of the decolorized

clots. Still lower down there was a third aneurism larger than the others and more irregular in shape.

This aneurism almost completely filled the cavity in which it was situated. The wall was at one point very thin, but it was unruptured. It was situated on a fair-sized branch of the pulmonary artery. The cavity of the aneurism was divided by a well-marked septum into two parts. From the lower end of the sac two efferent vessels sprang.

The second patient, a man æt. 28, suffered from tubercular phthisis. On December 15th, he was attacked with violent hæmoptysis, the blood spirting from the mouth and nose. He was dead in a few minutes. At the post mortem, both lungs were found infiltrated with tubercle. In the left apex there was a cavity the size of a small apple, and in that cavity was situated a round aneurism the size of a cherry.

The aneurism had ruptured by an opening sufficiently large to admit the passage of a good sized probe.

The cavity in which it was contained, the bronchial tubes of both lungs, and the trachea were filled with blood, partly fluid, partly coagulated.

All four aneurisms contained a small quantity of fluid blood. In none was a clot found.

Three Cases of Dysentery Treated Successfully by Large Doses of Ipecacuanha — Given by the Non-Emetic Plan. Forester. (*The Boston Med. and Surg. Jour.* Feb. 1877.) The following cases of dysentery treated by ipecac are of peculiar interest, says the author, because of the prevalent notion that large doses of the drug cannot be given beneficially to dysenteric patients without being followed by emesis. Case One was treated by twenty-five grains of pulverized ipecac every six hours, suspended in syrup of orange peel, and patient instructed to remain in the horizontal position, and to abstain from food and liquids during the treatment.

The ipecac, if rejected, to be repeated every twenty minutes until retained. The other cases reported were treated as the first, and the result obtained in each was speedy convalesence, followed by recovery. W. F. L.

Treatment of Fissures of the Nipples During Lactation. Buttler. (*The Ohio Med. Record.* May, 1877.) When fissures of the nipples are not due to some constitutional cause, tinct. of benzoin freely applied to the parts will, in about five to ten days, effect a cure. Only the first application is painful. Tinct. of benzoin forms a covering on the surface of the nipple, and so protects it from the child. Lactation is never interrupted by the above process of treatment.

W. F. L.

II. Surgery.

Nerve-Stretching in Sciatica.—John Chiene (*Practitioner*, May 1877).—The writer reports two cases of sciatica cured by operation as recommended by Prof. Nussbaum, of Munich. The operation consists in exposing, by an incision, the large nerve affected as the sciatic, and lifting it upon the finger. It is then pulled proximally and distally, and finally the limb of the patient is lifted up from the table by the nerve. Both patients were strong, muscular men, employed as furnace men, and, therefore, exposed to great alterations of temperature. One was left-handed, and the other right-handed. The former had sciatica in the right leg, while the latter had it in the left. This can be accounted for by the fact, that supposing the man to be right-handed, the nerve of the left leg is put on the stretch at each time of heaving coals with a shovel into the furnace. The opposite limb is affected if the man is left-handed. This stretching of the nerve as it passes out of the sciatic notch, the writer thinks is probably one of the causes of sciatica.

Both men had suffered severely with pain, and been unable to work for several months. The various remedies, as quinine, injections of morphine, blisters, galvanism, etc., had been tried without any good effect. In each case the sciatic nerve was exposed by an incision over it below its exit from under the fibres of the gluteus maximus. The nerve was then hooked upon the finger and forcibly pulled from above downwards,

and from below upwards, and the limb lifted from the table by it. The wound was treated antiseptically, and allowed to heal. The relief of pain was immediate after the operation, motion and sensation of the limb were not affected. Both men were able, the next day after the operation, to move their limbs without pain. At the end of two weeks, they were able to get out of bed and walk about, and in a month were discharged from the hospital cured. The *rationale* of this treatment the writer finds difficult to explain. If neuritis is one of the causes of sciatica, and the pathological conditions of the nerve are adhesions and thickening of the neurilemma, which press upon and irritate the nerve fibrils, then probably the result of severe stretching is to break down the adhesions, and remove the pressure from the nerve. It is worthy of mention, that the relief of pain was immediate after the operation, and the functions of motion and sensation were not disturbed. It may then be inferred, that the nerve tissue proper was not ruptured, but the stretching acted on the neurilemma or insulating part of the nerve.

III. Therapeutics.

A Case of Poisoning by Salicylate of Soda.—F. Petersen. (*Deutsche Med. Wochenschrift*, No. 2 and 3, 1877.)—The case was that of a girl, fifteen years old, who had been operated upon. The operation was a resection of the ankle joint. Fourteen days after the operation, through some misunderstanding, she was given twenty-six grammes of the salicylate in course of twelve hours. The toxic symptoms were similar to those that had been observed in the experiments on animals. The psychical symptoms were very prominent; at times she was perfectly rational, then again, delirious. The ravings were of a melancholy nature. This delirious condition disappeared gradually in the course of eight days, the intervals of sanity increasing. The patient had no remembrance of what occurred in this time. While she was rational she complained of severe headache; could not see well at a distance; suffered from strabismus and excessive mydriasis; had

a difficulty in hearing, and a ringing in the ears. The patient was troubled with dysphasia, the author thinks from innervation of n. hypoglossus. The hoarseness lasted four days. Accelerated respiration, forty per minute. The salicylate had no influence on temperature. Of interest are the disturbances of the vaso-motor sytem. In different parts of the body a dilatation of the blood vessels was noticed. Perspiration for a few days was very considerable.

Remedy for Itching.—Bœck. (*L' Union Médicale*, No. 33, 1877.)—The itching which accompanies certain cutaneous affections, such as pruritus, prurigo, and urticaria, constitutes the most painful symptom. To relieve it, the patient is shut up in a box, as for a vapor bath, and under him is placed a box filled with red-hot charcoal, upon which are placed juniper leaves. If they are not fresh they should be moistened with water. The patient is exposed to the vapor every second day for twenty or thirty minutes.

In prurigo, the fumigation succeeds immediately, and several patients treated by this method alone, have left the hospital cured. It has also cured, and without relapses, inveterate cases of pruritus and chronic urticaria. In chronic eczema, and in other cutaneous affections, the effects of fumigation with juniper leaves have not yet been well established. L. W. C.

Antiblennorrhagic Decoction.—Dupouy. (*L' Union Médicale*, No. 46, 1877.)—Four or five grammes (60 to 75 grains) of kava root, a species of pepper from Oceanica, are grated and macerated in a litre of water (one quart nearly), for five minutes, it being shaken several times. It is then filtered, and taken in two doses during the day, either before or after eating, until a cure is effected.

Twenty minutes after the ingestion of the first dose, the patient feels a pressing desire to urinate; but the micturition is already easier and less painful, and the urine has become clear. According to the author, a cure is obtained in ten or twelve days. The kava does not derange the digestive functions, nor produce diarrhœa nor constipation, and stimulates the appetite by its bitter taste. L. W. C.

Mercurial Frictions in the Treatment of Croup.—Foucart. (*Gazette Obstétricale*, 5 May, 1877.)—The author employs mercurial frictions in large doses, and attributes the success which he has had, a greater success than his predecessors have had, who have made use of small doses, to his *modus faciendi*.

In four cases, he has used mercurial frictions in doses of 50 grammes (1.6 ounces) in twenty-four hours. The frictions were made every two hours, alternately around the neck, upon the abdomen, legs, and soles of feet, and the anointed parts were then covered with a layer of wadding. To prevent its action on the gums, he gave at the same time chlorate of potassium. Finally, he prescribed an antimonial potion, which, except in case of imminent suffocation, should only be given 24 or 36 hours after beginning the friction. According to his observations, the mercury had the effect of facilitating the detachment of the false membranes, and of preventing their reproduction by modifying the plasticity of the blood, and this effect was often appreciable in from 24 to 36 hours, as shown by Dr. Simorre, in acute articular rheumatism. An emetic given at the beginning has no action upon the false membranes, which are still too adherent, and it fatigues the stomach, which sometimes becomes refractory to the medicine when its action is the most necessary, that is when the false membranes become loosened.

Of four cases thus treated, two, a boy of three years and a little girl of four years, recovered after vomiting pieces of false membrane and segments of tubes. The other two, girls aged eighteen months and six years, respectively, died, but the author believes they would have recovered if the plan of treatment had been faithfully carried out by the children's parents.

L. W. C.

Salts of Copper in Foods and Drinks.—M. Decaisne. (*L'Union Médicale*, No. 46, 1877.) The author called the attention of the Academie des Sciences, session of 16th April, 1877, to a paper read by him in 1864, on *Absinthe drinkers*. In that paper he said that a large number of the inferior kinds

of absinthe possessed all the characters of sulphate of copper, and that a certain proportion of the 150 absinthe drinkers under his notice presented, besides the alcoholism which he was then studying, well-marked symptoms of poisoning by copper.

Fifteen samples of absinthe, collected in the faubourgs of Paris, and analyzed for him, showed, without exception, the presence of sulphate of copper in variable quantities. Some distillers avowed that they added the sulphate of copper for the purpose of coloring it.

Recently, a case reported to him by Dr. Dubest of a young man who had taken a quantity of brandy, presented all the symptoms of acute poisoning by the salts of copper, and life was endangered. This brandy, on analysis, showed the presence of 1.64 grammes of acetate of copper to the litre. The brandy had been distilled in an apparatus which had not been used for a year, and which was charged with acetate of copper.

Dr. Decaisne submits to the Academie the following reflections:

1. That the annals of science, in France and abroad, are full of facts demonstrating poisoning, either acute or chronic, by the salts of copper.

2. That a large number of industries use these salts openly, or for the adulteration of foods and drinks.

3. That improper care of the vessels and utensils employed for industrial and domestic purposes, frequently determines the formation of dangerous salts of copper in greater or less quantities.

4. That the statistics of criminal poisoning in France, from 1857 to 1863, show 110 attempts upon human life by the sulphate and acetate of copper, and assign to these two substances the third rank among poisons used for criminal purposes.

Without wishing to judge of the value of experiments undertaken lately to clear up a question which appears to him improperly stated, he thinks that, in the name of the interests of public hygiene and of justice, it is the duty of hygienists and

physicians to counteract the dangerous and fatal tendency to present to the public the salts of copper as almost inoffensive.

L. W. C.

Remedy for Whooping-cough.—M. Dervieux.–(*Lyon Médical*, No. 11, 1877.) M. Dervieux believes he has found a preservative means in aconite associated with ipecac and cherry laurel water. This mixture is either a veritable preventive, or simply an abortive. His formula is as follows:

Extract of aconite,	.05	grammes	= $\frac{4}{5}$ grain nearly.
Cherry laurel water,	4.	"	= 1 dram "
Syrup of Ipecac,	3.	"	= $\frac{3}{4}$ " "
Mucilage,	200.	"	= $6\frac{1}{2}$ ounces "

This is given as soon as the characteristic cough presents itself, in doses of a teaspoonful every hour to young infants; two teaspoonfuls to those more than three years of age, and a teaspoonful to adults every hour. L. W. C.

Ergot in Atony of the Bladder.—*The Doctor*, July 1.—At a meeting of the Berlin Medical Society, Prof. von Langenbeck stated that in atony of the bladder, associated with enlarged prostate, in elderly men, in which the organ is never completely emptied of urine, he has lately tried the hypodermic injection of ergotine with most surprising results. In three cases, the contractile power was at once increased, so as to enable the patient to discharge the additional urine, and in a few days it had so augmented that very little urine was left behind. After one or two injections, the improvement was considerable, and even a diminution in the size of the prostate seemed to have ensued. Dr. Israel said that he had derived the same benefit from the employment of ergotine, and referred to the case of a patient who was thus enabled to hold his water for three hours, whereas before he voided it every ten minutes.

Cyanide of Mercury in Diphtheria.—Dr. A. Erichsen.—(*Med. Times and Gazette*, April 28.) This remedy is strongly recommended, in minute doses, in diphtheria. Of twenty-five

cases treated, only three proved fatal. With its use the membranes become thinner and less adhesive, and even where they had extended into the larynx, threatening obstruction, they had separated, and the larynx again became free. The writer believes that mercury shortens the duration of the diphtheritic process, and that this preparation does not, like the others, disturb digestion or nutrition. To syphilitic children, it may be given for months without disturbance, in doses of $\frac{1}{48}$ of a grain three times daily. The ordinary dose for a child under three years of age, is $\frac{1}{96}$ of a grain, once every hour or two.

The following is the formula:

℞.

Hydrargyri cyanatis, . .	gr. j.
Aquæ destill.	℥vi.
Syr. simplicis	℥ss.

M. S. Half or a whole teaspoonful every hour.

Ergot in Urethral Hemorrhage.—Boyland.—(*American Journal of the Medical Sciences*, July, 1877.) "Few anatomical structures are more delicate than the small urethra; few membranes are more highly organized in their physiological action, or more susceptible to pathological process. Reaction, therefore, follows with the utmost facility; indeed, the sensitiveness is so extreme in certain cases requiring antiphlogistic treatment, that the mildest injection is at times productive of urethral hemorrhage. Several patients of this class have fallen to my charge, with whom all injections had to be abandoned, and cold compresses or the ice pack resorted to. These usually afford relief, unless the hemorrhage having continued some time has become aggravated."

Dr. B. then details a case of profuse urethral hemorrhage, occurring in a young colored hostler, after using a mild astringent injection for the relief of a gonorrhœa. The hemorrhage not being controlled by cold compresses, he was ordered fifteen drop doses of fluid ext. ergot every two hours, and rest in bed. After six doses was very much relieved, and a few more doses entirely cured him. The chemico-physiological action of secale cornutum upon the capillaries of the urethra, is analogous to that upon the arterioles of the uterus. D. A. K. S.

Salicylic Acid in Rheumatic Fever.—Dr. Southey.—(*British Med. Journal*, May.) After the first week of the fever, ten grains of the acid dissolved in liquor ammoniæ acetatis is given every two hours for the first twenty-four. It is then given less frequently, so as to produce only slight physiological effects, as noise in the head, etc. By this mode of treatment, the temperature is reduced, arthritis lessened, and the patient rendered less sensitive to the pain. It, however, does not prevent endocarditis, or other complications.

IV. Obstetrics.

Menstruation by the Pedicle after Ovariotomy.—W. F. Atlee. (*American Journal of the Medical Sciences*, July, 1877.) This menstruation by the pedicle has taken place several times after ovariotomy in the practice of Dr. John L. Atlee. The following extract from a letter by a lady of Morristown, N. J., upon whom he performed ovariotomy in June, 1875, will be interesting in this connection. The pedicle was very short, so short, indeed, that the clamp seemed to touch the left horn of the womb. "I shall try and write as plainly as I can just how I have been since the operation, one small place about the centre of the scar left by the clamp has never entirely healed; for some months except when discharging the exact spot was not perceptible without the closest scrutiny. Since then it has assumed the appearance of a pimple, which has increased in size, and always has a bright red color, and just before it breaks, a purplish red appearance. The discharge always occurs at the time of my monthly sickness—sometimes commencing the day previous—discharging only a few drops at a time followed by blood. The discharge is thin, clear and watery, almost sparkling—looks as though it might be sticky, but never has any appearance of corruption. I should think the discharge each time might amount to about a half teaspoonful and about double the amount of blood. Latterly it has broken at other times, then only the clear liquid; but has never failed to break at the time of my sickness since I had the operation."

D. A. K. S.

Ether Spray Externally in Post-partum Hemorrhage.—Griffiths. (*Practioner*, March, 1877.) Dr. G. was recently consulted in two cases of severe post-partum hemorrhage. In both cases every means had been adopted but unavailingly. It flashed across his mind in the first case to try the effect of ether-spray, and accordingly he directed a large spray across the abdominal walls, along the spine and over the genitals; the uterus at once responded, and the cessation of the hemorrhage was almost immediate. In the second case, he lost no time in adopting a similar treatment, and with an equally successful result. He has consulted several eminent obstetric practitioners in Dublin, and was informed by them that they were not aware that this treatment has been heretofore proposed. The advantages of the ether spray over the application of cold water, and the other means usually adopted to every practitioner of midwifery, must be apparent

D. A. K. S.

Imperforate Hymen with Large Accumulation of Menstrual Fluid.—Winsor.—(*Boston Medical and Surgical Journal*, July 12th, 1877.) On November 4th, 1875, an American girl, unmarried, aged 17, was seized with dysuria, having urinated but once scantily in twenty-four hours. She had no fever, acceleration of pulse, or pain, except during the attempts to urinate. During the previous year had one or two similar attacks, though less severe. She had never menstruated, nor had any periodic symptoms. Had occasional "stomach ache" in the ovarian regions. She was of average height, but thin and rather feeble. Under medical advice she had been kept out of school, and had taken tonics for the past year. The dysuria continued six hours, when she voided a quart of pale inodorous normal urine. Was given antispasmodics. Twelve days later she again suffered from distressing retention of urine. For a week previous micturition had been "troublesome and painful." She was etherized with a view to overcome spasm, if that was the cause, but no urine flowed. On attempting to pass the catheter, the vulvar opening was found filled by a protruding tumor tense, fluctu-

ating and closely resembling the unruptured membranes of the second stage of labor. The margin of the vaginal tumor was continuous with the walls of the vagina. Palpation showed the abdomen occupied by a median tumor extending above the umbilicus. Here, then, was a firm imperforate hymen, and behind it fluid. The finger in the rectum and a hand over the abdominal portion of the tumor, showed it to be continuous and fluctuating. The bladder was emptied with the catheter without diminishing the size of the tumor. A diagnosis of retained menstrual fluid was made, and Dr. C. E. Buckingham called in consultation and confirmed the diagnosis. Gradual evacuation of the fluid was decided on, and under ether about six ounces of thick, dark brown inodorous fluid was withdrawn through the largest canula of an aspirator, when the canula was withdrawn and the fluid allowed to ooze away. Measurement of the abdominal portions of the tumor showed it, to extend one and a half inches above the umbilicus, and about four inches transversely.

The day following the puncture, December 27th, her pulse was 104, temperature 97°. The discharge kept draining away for four days, when the tumor had diminished at least two-thirds in size, when the discharge became offensive, and a solution of bromo chloralum was injected. That evening the temperature was 103°.

On the fifth day she had great abdominal distress,—face was pinched and anxious; pulse, 110; temperature, 101. Nothing could be passed through the puncture. She was etherized, and an incision made at the seat of puncture that would admit the finger into a roomy vagina, then with scissors the hymen was freely opened up antero-posteriorly and laterally. About a quart of tarry stinking fluid escaped. The vagina and womb were washed out freely with a solution of bromochloralum, and an oiled oakum plug left in the vagina. She was given six grains of quinia four times daily. The next day a petechial eruption was noticed over the trunk on the following day; eight days from the first puncture she had a rigor followed by severe pain in the right iliac region, and symptoms indicating blood-poisoning. Under the use of

brandy, salicylic acid and nourishing food, in the course of a few weeks she recovered from these symptoms without any abscess having formed. She menstruated scantily, February 3d and March 8th; and normally, April 11th, (fourteen weeks after the operation) and every month since. She now weighs thirty-four pounds more than when she left her bed, and is in every way healthy and happy. It has been suggested as an improvement in the operative treatment of such cases, that after the *first* withdrawal of fluid some disinfecting solutions be injected to avoid the danger of septicæmia, while the advantages of gradual drainage are still retained. The risk attending sudden and complete evacuation, is said to be less from so-called "shock" than from the peritonitis induced by laceration of existing adhesions, as the womb suddenly settles down in the pelvis. D. A. K. S.

Premature Delivery Provoked by the Soft Sound.—M. Marchal.—(*Gazette Obstétricale*, May 5, 1877.) M. Marchal has brought on labor successfully, 236 days after the end of the last mentioned period, in a woman 37 years of age, presenting an antero-posterior diameter of 8 centimetres (3-15 inches) at the superior strait, and in whom two former labors had been terminated by cephalotripsy.

The proceeding of M. Marchal consists in the introduction of a gum elastic sound, provided with a mandrel which is withdrawn as the top of the sound enters the uterine orifice. If necessary, an intra-uterine injection may be used to separate the membranes over a greater extent of surface.

M. Granjean, following the example of M. Staltz, has made use of a male metallic sound, for the same purpose, obtaining complete success. L. W. C.

The Prophylactic Treatment of Placenta Prævia.—Thomas.—(*The American Practitioner*, May, 1877.) Induction of premature delivery after the period of viability of the child, is the only method at present which will enable the obstetrician to avert the evils attendant upon the three last months of utero-gestation. In every case of placenta prævia,

where the lives of both mother and child are threatened by repeated hemorrhages, premature delivery should be induced. The only contra-indication claimed to premature delivery is, that less than nine months of intra-uterine life fails to give a child as good a chance for life as one arrived at full term has. Dr. T. says that, "an eight months' child out of the uterus, depending upon pulmonary respiration, has brighter prospect for life than one in the cavity depending for aeration of its blood upon a crippled and bleeding placenta." The author reports eleven cases of premature delivery conducted by him, being the number in full of all his cases of placenta prævia treated by the prophylactic method. Of the eleven cases, labor occurred at the eighth month in seven; of these, one mother died of septicemia, and two children were still-born; of the rest of the cases, (4) two were delivered a little before full term (8½ m.). One child was born dead, and one was still-born. In all cases of placenta prævia, premature delivery should not be induced, before the period of viability of the child, unless the life of the mother is threatened. Barnes' dilators were employed to dilate the cervix, as a preparatory step to delivery. W. F. L.

ANNOUNCEMENTS FOR THE MONTH.

Societies—Mondays, August 6 and 20, Chicago Medical Society.

Clinics—Saturdays, at Rush College, 2 P. M. Surgical, Prof. Gunn. Tuesdays, at Chicago Medical College, 9 A. M. Surgical, Prof. Hyde.

Lectures—Mondays, 4 P. M., at Cook Co. Hospital Necroscopy Theatre. On Pathological Anatomy, Prof. I. N. Danforth.

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A NEW RESTING AND INVALID CHAIR.

EPHRAIM CUTTER, M. D., Cambridge, Mass.

The philosophy of rest in chairs, embraces some of the following principles :

1st. The weight of the body necessitates rest upon some support during its physical existence. In the standing position, the feet must be supported upon fixed or floating material.

It is proposed to confine these remarks to supine, horizontal, or inclined positions.

In each case the body is in a state of perfect rest, when it is supported at as many points of contact as possible between it and the supporting material. The weight must be distributed as evenly as possible over the largest extent of surface, for then there is a minimum of compression of the tissues. When a swimmer is floating in water, the surrounding fluid is applied over the body, and the weight evenly distributed over the largest amount of surface. But water cannot be employed as a support except in a bed, since its chemical and physical qualities prevent its adoption for a chair except in the condition of ice.

Dry material used for a chair, to be thoroughly adapted as a support, must be accurately fitted to the whole posterior surface of the body. It should be a non-conductor of heat; elastic or non-elastic ; ventilated or not ventilated.

2d. The position of the human body at rest should be such as to allow the least amount of expenditure of energy, in order to conduct the circulation of the blood. If there is local compression of any part, there the circulation is impeded ; the resistance to be overcome requires the heart to put forth more force, or nutrition becomes impaired. When the pressure is long continued in the case of sickness, bed-sore often results. The posture in which the circulation is the most easily performed, is that in which the thighs are flexed and the feet supported higher than the head. This position avoids hydrostatic pressure of the blood in the veins of the lower extremities, amounting sometimes in tall persons standing, to several pounds to the square inch, the numerous valves in the same veins also obstruct the passage of the blood. Now in the case supposed, the blood gravitates towards the heart, and facilitates its own return. A quickened circulation means improved nutrition, hence, surgeons used formerly to elevate the lower limbs in the treatment of ulcers of the leg. It means also comfort, hence, the habit acquired by our legal brethren of putting their feet upon chairs and mantels. The habit of sitting in chairs tipped backward is a partial attempt at gaining rest by the same process, a habit which has been regarded by foreigners as a national reproach to us.

But it should not be dismissed with a sneer, for it is a partial carrying out of a principle which faciliates *rest*; because, by it the blood is more readily returned through the veins, aided by it own weight plus the absence of hydrostatic pressure ; and because there is a saving of heart-force. A few moments of heart-rest are not only refreshing but necessary.

This may not amount to so much in health as in disease. Take for example, a case of valvular disease of the heart; there the organ works on under great disadvantages, it is like a pump with one box deranged. It labors hard to push forward the life stream. Sometimes it fails suddenly and the result is death ; but generally it succeeds in maintaining the circulation. This is done, however, at the expenditure of a great amount of vital force. If the other organs of the body, are sound and carefully managed, this strain is readily borne,

but if the body becomes from any cause wearied, the strain is felt, and palpitation and labored respiration result.

Now if in such a case, the lower extremities be elevated, so that the body will represent an angle somewhat larger than that of the letter V; the head being at the left extremity of the V, the hips at the angle, and the feet at the right hand extremity, then we have the position in which the blood gravitates towards the centre of the body. The heart has the minimum of work to perform, and the conditions of good physical rest are attained, because the body touches its posterior planes, curves and surfaces from head to foot.

A man, aged about 61 years, furnished a practical illustration of the effect of this position. He had organic disease of the heart, indicated by palpitation, only one cardiac sound, dyspnœa, sleeplessness and inability to lie in bed over two hours at a time in the night. He had overworked in mind and body, and thus aggravated all his bad symptoms. At the writer's request he assumed the V position on a chair [to be described], and after two days use of it, his heart became so much rested that he found no difficulty in sleeping all night in bed. Without employing medicine, and aided by rest alone, his heart, relieved of its overload, regained power enough to do its work under the unfavorable conditions of valvular lesion.

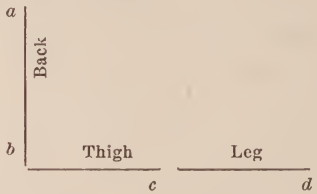
3d. Paradoxical as it may seem, rest for the living human body requires motion. The body is a bundle of kinetic energies. It is unlike inanimate bodies in this, that if kept in one position, the joints become stiff, the body cramped; and, if one single position, no matter how comfortable, be long maintained, the person becomes incapable of normal motion. Let a strong, healthy man lie in bed continuously for weeks,—as in fractures of the thigh,—and he will become incapable of rising and walking at one effort.

It is then desirable, after having arranged for a perfect contact of the under surface of the body, to have the medium of support capable of motion at the great natural points of motion; viz., the hip and the knee.

a back. *b* thigh *c* leg *d*

Let *a*, *b*, *c*, *d*, represent the support in question. At *b*, place

a joint moving in a vertical plane for the hip. At *c*, place a like joint for the knee. It is seen at once that a variety of movements may be executed with this device, analagous to those of the body, as follows:



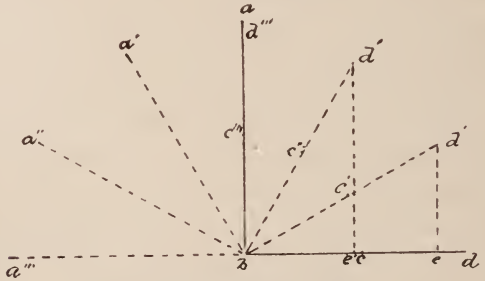
Elevate *a*, *b*, to a right angle with the *b*, *c*, *d*.

Suppose a man extended upon this support, and we have the very comfortable chair found in the Boston barber-shops. Here the weight of the body comes upon the legs and thighs. The hydrostatic pressure is lessened by the height of the lower limb, and the heart column is correspondingly relieved.

But if long maintained, this position becomes irksome. A healthy person can change it, but the invalid cannot. How, then, can we give this support, and permit a change?

Simply by putting the support on a frame work and jointing it at *b*, so that the *V* rotates 90°, upward.

FIGURE I.



a, back; *b*, thigh; *c*, leg.

Fig. I. represents this motion; *a*, *b*, *d*, is the position described; *a'*, *b*, *d'*, the same when the support is turned back. The angle *d'*, *b*, *d*, represents the angle of inclination of the thighs. The dotted line *d'*, *d*, represents the hydrostatic pressure relieved; *a''*, *b*, *d''*, the *V* position exaggerated, as *d''* is higher than *a''*.

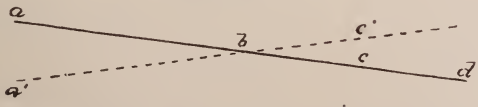
When a'' is of the same height as d'', the weight is divided according to the weight of the parts.

A''', b, d''' represents the whole weight of the body thrown upon the back,—a theoretical, but not a practical position, the feet being elevated. Both body and legs are here reversed 90° from the position a, b, d.

Here, then, support and motion are combined so as to throw at will the body-weight on the back or thigh, or to divide it equally between both, the division being in any proportion desired. This arrangement is advantageous, because it distributes the pressure evenly, and yet allows of change. Still, it involves immobility of the great joints. By referring to the diagram it will be seen that it is easy to get more motions by using the joints in the support a, b, c, d. In Fig. 1, bend down c, d to a vertical position, and a, b, c, d, will represent a common chair position. Rotate this backward 45° upon the supposed frame and the *W* position is attained when the thighs and legs are flexed, and yet perfect support attained.

This forms the "triple inclined plane" of Dr. Lewis A. Sayre, of New York city, with this exception, that the joints in the described device are movable and adjustable. It is an excellent, theoretical, and practical position for persons suffering from fracture of the thigh. The weight of the body gives the extension, the position of the legs, the counter-extension. Being fitted to the sound thigh, of course the broken thigh is constantly drawn into place. The joints are, or can be, kept moving while the extension is continued. As motion is the natural condition of a joint, of course any device which allows of proper extension with absolute and relative motion (change) is a desideratum.

FIGURE II.



a, back; *b*, thigh; *c*, leg.

FIG. II. represents a change in the position first given, so that the head approaches the floor,—a position which is useful in case of fainting from any cause.

With this device a, b, c, d, hung at b, on a frame, any pos-

ition of the human body, sitting or reclining on the back, may be imitated. More than bed or lounge, or any previously offered device, it offers the opportunity of depressing the head and trunk almost to the floor.

With these preliminary observations, the writer desires to call attention to the contribution he offers, in solution of the mechanical problems proposed.

FIGURE III.

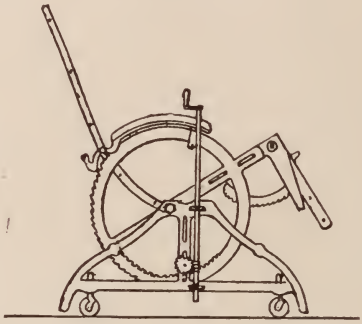


Fig. III. Mechanical drawing of author's chair.

The frame is made of cast iron, heavy enough for durability and safety. The back is curved to fit the body and varies in length from 24 to 36 inches. The sides are formed by circles, in order to get the strength of the double arch. Notches are cut on the posterior and upper quarters of the circles, in which play pawls attached to and regulating the back portion. Teeth are cut on the inside of the lower and posterior quarter, in which play cogs that are turned by an endless screw on a shaft attached to the side of the frame-work. This screw ensures control of the apparatus and regulates its motion. It may be turned by the patient. The circles, also, afford support for the arms of the chair. An iron cross-bar traverses the horizontal diameter of the circles. This affords strength, and extending forward, forms an attachment for the seat portion and the bracket for the leg portion. It is fenestrated so that the seat portion can be lengthened. The leg portion consists of a U attached by a joint to the end of the seat portion. Half way down on each side are long pawls with teeth cut on the convex side which engage in the brackets of the seat portion.

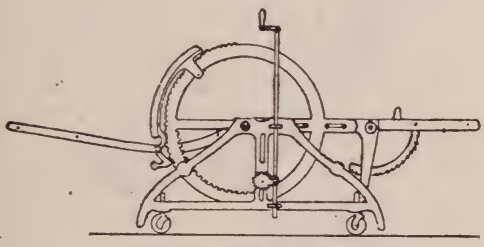
Suitable horns project in front from these pawls to permit their being lifted when it is desired to flex the legs. To extend the leg portion it is only necessary to draw it out upwards.

Foot Rest. This was attached to the earlier chairs, but has been abandoned as, unless fitted accurately to every leg, it prevented the accurate resting of both thigh and leg upon their support. Besides, the device is intended to relieve the feet from pressure. When a chair is intended for the use of only *one* person a foot rest may be applied.

The thigh portion measures 17–22 inches. The leg 17 inches. The width of the chair varies from 18 to 25 inches.

Three inch castors are placed under each corner of the frame. The size of the frame was determined by actual test, and the length of side was governed by the stability under ordinary circumstances. Invalidism must have a chair that will not easily tip over. Remove the castors and the chair becomes almost a fixture.

FIGURE IV.



Bed position of the chair.

FEATURES OF THIS CHAIR.

(*a*). Center of support, the center of motion.

(*b*). Motions, those of the hip and knee joints, in vertical planes.

(*c*). Absolute motion without relative motion of body, thigh and leg.

(*d*). The reverse of the last.

(*e*). Accommodation to abnormal conditions, fractures and anchylosis.

(*f*). Person can change the part rested upon. In bed-ridden cases, this is of service in preventing bed-sores.

(*g*). A person can be raised from a supine to a sitting posture (or the reverse) gradually, and stop at thirty-four points on the way.

(*h*). Adjustments to different lengths of thighs.

(*i*). Patient may be removed from bed to chair without lowering.

(*j*). Absolute motion made by endless screw and pawls of the simplest forms.

USES.

1. *For orthopnœa*, as in asthma, heart disease, rheumatism, and where persons are obliged to sit up all night and cannot lie in bed.

2. *For Fracture Bed.* See sequel.

3. *For Operating Chair*, this was the original design of the chair to be used in modified thyrotomy as published by J. Campbell & Son, Boston, 1867.

FIGURE V.

Fig. V. Device for holding a child in the operation upon the thyroid cartilage.

For surgical operations of other kinds, it permits close contact of the operator and fixation of patient. Faintness from hemorrhage is controlled; vomiting is readily managed by elevating to a vertical position.

As a *gynecological* and *office* chair, I have found it useful. See sequel.

(4.) In convalescence and invalidism it is a useful means of getting a patient out of bed so as to use an ordinary chair. See sequel.

(5.) *In health*, it may be used as a reclining and resting chair. Women generally find it very restful in backache.

They are sold from $35 to $45; are durable, and will last for a generation with ordinary care. The upholstering varies with the tastes of the patient.

FIGURE VI.

Chair with Fracture apparatus, which may be detached by removing one screw.

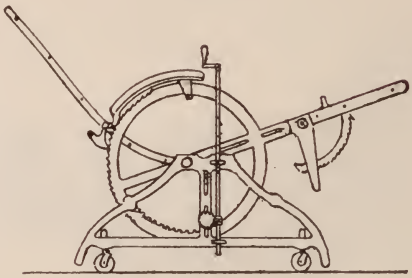
The device of the author represented in the cut, is for extension in fractures of the thighs or legs. It is held securely in place by one screw. Extension may be made by a weight attached to a cord that passes over a pulley, or by an india-rubber tube fastened to the slot in which the pulley plays. By this arrangement the joints are kept in motion without disarranging the extension. The patients may sit up for the sake of eating, reading or writing. For defecation, &c., a bed pan is provided, made somewhat like a common dusting pan. The patient may be moved about the apartment, up to the window or even into another room. In this manner the tedium of confinement is very much alleviated. This relief is by no means an unimportant element in securing a successful and satisfactory progress of the case. The elevation of the head and the motion of the great joints ensure a shorter convalescence.

The shocks, also, of motion and jars of the apartment,

ordinarily so troublesome in rheumatic fever, are not felt, as the suspension of the patient is all upon one centre.

The following cases of fracture have been treated in the manner described :

FIGURE VII.



Case I. V position : a middle-aged, medium-sized, robust man, aged 50 years, was thrown from his carriage early in July, 1872. He sustained a compound fracture of the right ankle joint, the lower portion of the thigh presented a Y fracture, and the malleolar process protruded one and one-half (1½) inches through the skin. The ankle joint was laid open. He was placed upon the chair in the V position, the thigh and seat portion being on an elevated single plane. A fracture box was placed on the lower part of the chair, and the projecting part of the box supported by a stand. The fractured limb was surrounded with sponge soaked in glycerine and packed in three pads of linen, one below and one on either side of the leg ; the pads were covered with oil-cloth near the side of the wound, no bandages or circular compression of the limb were employed.

At night, the back portion of the chair was lowered to the level of the other part ; in the day time, it was raised to any desired elevation. He had during the course of treatment, pneumonia, secondary fever from inflammation and purulent infiltration of the joints and surrounding parts. The wound discharged at least one pint of pus. When he stood on his feet for the first time he *immediately* walked through the hall to an adjoining room, an exceptional circumstances in my ex-

perience of similar fractures, the reason being that an enforced recumbent posture for seven weeks or more, causes an accommodation of the system's circulation adapted to the posture. Any sudden change from the dorsal to the erect position is then followed by a disturbance of the nice economy of the heart-force, so that faintness results. The arrangement of this patient's bed allowed of frequent changes of position, so that there was no disturbance of the central circulation, and locomotion became immediately possible. This patient made a good recovery in joint and limb.

Under date of June, 1877, he writes :—"The relief on being placed on the chair after lying upon the bed for a few days was great. I was not taken from it for *ten* weeks, during the hottest of weather, when a bed is almost unbearable. I could eat, sleep or write upon it; my position could be changed at any time, and this afforded much relief. It (the chair) is easily managed, and, I can honestly say, it is the best and most comfortable I have seen. Having tried it, I know."

This was the first case of fracture treated in the chair, and thus it possesses an unusual interest.

Case II. A boy, eight (8) years of age, very nervous and pale, was thrown off a pony in March, 1875, and sustained a simple fracture of the right femur, middle third. Fears were expressed as to the effect of the shock upon his nervous system, in view of the fact that he had been difficult to manage whenever he had been sick before. A chair was arranged with a ten-inch thigh portion. The back of the chair was upholstered with Brussels carpeting, the seat with sole leather and the leg portion with carpet. He was transferred to the chair as follows: Chair placed in the horizontal position; a pole six feet long and two inches in diameter was held over the boy as he lay in bed. A blanket on which he lay was then drawn over the pole from both sides of the boy, gently made tense and fastened by tacks driven through the blanket into the pole. He was then raised by the ends of the pole and placed upon the chair so easily that he did not know when it was done, as he could not see. Adhesive straps were fastened to the thigh and connected with a weight simply hung over the back of the

chair. This furnished the extension. To ensure safety, a sole leather splint was placed around the fractured thigh. The chair was continually moved about, and the back, thigh and leg portions were repeatedly moved backwards and forwards, giving motion to the hip and knee joint without at all disarranging the extension. A common dust-pan covered with newspaper served for a bed utensil. In a few weeks he made a perfect recovery, so much so that his uncle said he could not tell from his gait which limb was broken. The quick recovery must be attributed partly to his youth, partly to a diet of animal food and unbolted grain, and partly to the movable and adjustable bed chair.

Case III. Miss A. R., aged 70 years, single; fell while crossing the oiled hard pine floor of her kitchen in April, 1875. She had been in miserable health during the fall and winter previous, with digestive troubles which an autopsy shows to have beeen due to cancer of the liver. Her debility was so great that she kept swooning away after the fracture, and it was with great difficulty that she could be kept from dying, by the use of diffusible stimulants. She was, however, placed upon an invalid chair. Adhesive plasters, an India rubber tubing, and a fixed point beyond the foot furnished the means of extension. The tubing furnished an adjustable, direct, elastic extension in a small compass. At the very outset of her confinement in the chair, Miss R. fainted away frequently from sheer weakness. Whenever this occurred, it was only necessary to turn the chair backward and to lower the head until the equilibrium was restored. At the time it seemed as if this change of position alone saved her life, as the fainting fits were so long continued that medicines lost their effect, the gravity proving more valuable than the drugs. A singular and unusual experience followed this, in that she had an attack of diphtheria, the membrane being abundant and visible in the throat. There was fever, and cervical adenopathy. At times she was choked by the detached membrane, and when this occurred, she was rapidly brought to an erect position. She was thus enabled to manage her throat and mouth, as she could not have done in the ordinary horizontal position. So that in fainting and

vomiting she tested the chair quite thoroughly. Curiously enough, the fractured bone united well and promptly with three-fourths of an inch shortening. When it was healed she was replaced in bed.

Her miserable and painful existence, however, was in a few weeks brought to a conclusion by cancer of the liver. The organ was found to be enlarged, and studded with yellowish globules of considerable consistency. Her life certainly seemed to have been prolonged by the use of the chair.

Case IV.

In Dec., 1876, Mr. J. D—— tried to remove some ice from his boot-heel by kicking, and fell. When raised he was found to have sustained a dislocation of the left ankle joint, and a complete fracture of both malleoli. The dislocation was relieved by bystanders. He was placed upon a cane chair covered with a hair mattrass. The extension apparatus represented in the cut, was employed in this case. It worked well. There was no difficulty in assuming comfortable positions. The malleoli became rapidly attached in place, but the ligaments and torn fascia were as usual, long in healing. The patient and his friends expressed great satisfaction with the use of the chair, as it relieved the tedium of confinement. Recovery was good, though the patient was a man of full habit, very strong and muscular, and unused to being shut up in the house.

Case V.

Dr. S. W. Kelly, of North Cambridge, Mass., aged 55 years, was walking down Hanover street, Boston, when he suddenly found himself lying upon the icy pavement. He had slipped over an iron coal scuttle. On examination he was found to have a dislocation of the ankle and fracture of the internal malleolus of the tibia.

His subsequent experience was almost the same as that of Case IV, though being of a nervous temperament the confinement was more irksome. He, also, had a slight attack of inflammation of the lungs. He made a speedy and good recovery, and says that he can conscientiously recommend the chair

from personal knowledge. He is a regularly educated physician and a member of the Massachusetts Medical Society, in good standing. He has had a large experience in the practice of his profession.

CASE VI.

Mrs. A. W., of Boston, while visiting in Dec. last, fell and sustained an impacted fracture of the neck of the femur. She was a widow 82 years of age, and of active habits. The diagnosis was concurred in by three surgeons. She was not rendered helpless. With assistance she could change from bed to lounge or chair. There was inability to use or move actively the injured limb. For the first month she used a common Holmes' reclining chair. She was, however, not satisfied with it, and later made trial of the device herein described. This proved so satisfactory that she declared she gained "two days in one" by its use. No extension or bandage was used, the position on the chair being solely relied upon. She has made a remarkable recovery considering her age, with but one-half inch shortening. She walks up and down stairs, and about the house with a cane, and now has gone to the sea-shore for the summer. To the writer, this case has shed a new light upon the treatment of fractures of the thigh. Is it not a mistake to invariably apply bandages and extension? The physical changes resulting from the injury must obstruct the circulation in the limb. This may be called a *central* obstruction. Is it well to add a peripheral obstruction by bandaging? This patient might have recovered by the aid of other appliances, but it is not disparaging them to say that the chair last used certainly did well and facilitated recovery.

3. As an *operating chair*. Dr. Gilman Kimball, of Lowell, has employed it in a case of amputation of the breast. He expressed himself as pleased with it. In ordinary chairs, the patients when anæsthetized slip downwards. With this device this difficulty is obviated by simply using the chair as a V and elevating the feet. A point of resistance is thus formed. In a late case of modified thyrotomy for the removal of a sessile growth that lined the whole larynx, the writer found his chair

very useful. The operation was difficult, and protracted for one and a half hours. The patient was put (just where she was wanted) into positions impracticable by any other means known to the writer. The facility with which the operator placed himself in a suitable relation with the patient, relieved the arduousness of the trying dissection.

As a *gynecological chair.* The writer has placed women upon their backs and sides in the chair, and then depressed their heads, so that the sun's rays shone directly on to the os uteri through the speculum. Direct or reflected artificial light may be used for the same purpose, as follows: Drop the leg portion to a right angle with the thigh portion, the back being slightly elevated. The patient sits down on the seat, then lies down in the dorsal or lateral position. A few turns of the endless screw depresses the head and elevates the buttocks so that the operator, sitting or standing, can look downwards just as in writing or eating, *i. e.*, the most natural position for observation. I have used the chair in exploring the uterus by Simon's method—that is, by passing the whole hand and half the forearm into the rectum and large intestines. The peculiar position given by the chair was found to be very favorable.

I have also used the chair in measuring and fitting a pessary. The following statement indicates what the patient herself can do with the chair. A lady suffered much from an ulcerated and hyperæsthetic condition of the uterine cavity, which intrauterine topical applications alone benefited. Circumstances of time and distance forbade the frequent attendance of the writer, as often as was necessary. The patient asked, if she could not be instructed to make applications herself. The attempt was made with perfect success. Lying on the chair on the back, opposite a window, she applied the Storer speculum, held a mirror between her knees, saw the os in the mirror (this I verified,) and applied her medicament with a Pinkham's scarificator. This instrument, like a uterine sound, is grooved longitudinally, the medicament is rubbed up with lard and deposited in the groove near the extremity. A small pledget of cotton is placed in the groove next the proximal end. A wire traverses the groove, and one end of it rests on the cotton, the other project-

ing. When the instrument is introduced into the uterus to the point desired, it is only necessary to push forward the wire. This advances the cotton pledget, and extends the ointment.

The same patient has applied slippery elm tents, in a similar manner through the speculum.

In *convalescence.* Sometimes patients exhibit a determined inclination not to sit up in an ordinary chair, after a long sickness, when it seems as if they might do so. An instance of this occurred to the writer. The patient was induced to use the chair. At first the bed position was used. The erect position for the trunk was gradually assumed, then the legs were dropped. The spell was broken; the invalid went down stairs to dinner after two days use of the chair.

Another lady, suffering with fibroid tumor, found the chair a great relief to her pain and weakness.

Indeed it is useless to multiply the histories of such cases. As a resting chair for over-worked persons, it has produced practically the happiest results.

The chair is not a proper locomotive chair. It does not answer every imaginable purpose, but in the instances that have been named, the expectations raised were, humanly speaking, fully realized.

A NEW METHOD OF TREATING FRACTURE OF THE CLAVICLE.

Henry Van Buren, M. D., Chicago.

While one of the visiting physicians of the Central Free Dispensary about two years ago, I treated a patient for fracture of the clavicle, adopting the plan of my friend Dr. Lewis A. Sayre, of New York, using two strips of adhesive plaster without any axillary pad.

I became convinced at once, that the principle advocated by Prof. Sayre, was undoubtedly the correct one; but before I had gone very far in the use of the adhesive strips, I found that my patient, a young native of Ireland, began to tear them off. The weather was warm, and, to use the language of the lad, they "itched him."

Finding this difficulty in holding the arm and shoulder back by a hitch around the body with adhesive plaster, the thought struck me, that I would make a hitching post of the sound shoulder instead. Not as in the old plan of a figure of eight around both shoulders, but upon that which I will now lay before my brethren in the profession.

To make known my plan in a sentence—I make attachment to the middle of the arm on the fractured side; draw the arm backward until the clavicular portion of the pectoralis major muscle is put sufficiently on the stretch to overcome the sterno-cleido-mastoid, and then make a hitching post of the sound shoulder to hold these muscles in extension, and by this extension with the sling, which will be hereafter described, the ends of the fractured clavicle are held in apposition.

I make the first bandage 3 or 4 inches wide out of unbleached cotton, of double thickness and sufficient length. On one end of this bandage a loop is made, by returning the bandage on itself, and fastening the end with a few stitches. The hand on the injured side is then passed through this loop, and the loop carried up to a point just below the axillary margin. This bandage is then passed directly across the back, and under the sound arm and over the sound shoulder, and returned across the back, and pinned or stitched to itself at the point where the loop is formed. See figure 1.

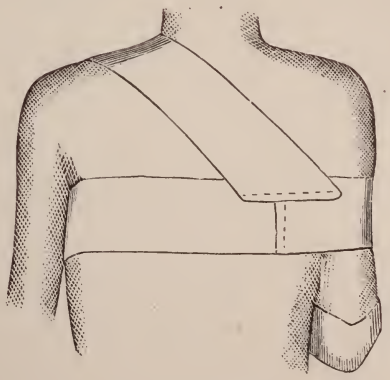


Figure 1. VanBuren's first bandage for fractured clavicle. Back view.

The second bandage is then made and applied as follows: I flex the arm of the injured side, and place the hand on the chest, pointing in the direction of the sound shoulder; I then take a piece of the same material as used in the first instance, and make a bandage 4 inches wide, of double thickness and sufficient length, and pin or stitch one end of this bandage to the lower margin of the first bandage, in front of the sound shoulder. It is then passed diagonally downward, and across the chest under the hand and forearm which has been flexed upon the chest, and carried around the arm at the elbow, and back on the dorsal surface of the forearm and hand to the point from which it started, and this end also pinned to the first bandage.

I then stitch the lower margins of this bandage together for a distance of about three inches at the elbow, thus forming a trough for the elbow to rest in. I also do the same at the upper end of this bandage, which forms another short trough for the hand to rest in. See figure 2.

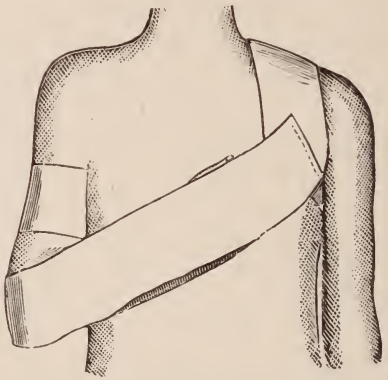


Figure 2. VanBuren's second bandage for fractured clavicle. Front view.

This bandage or sling may be made as described above, before it is applied, and the elbow placed in the lower trough and the hand in the upper one; and the upper ends of the bandage pinned to the lower margin of the first bandage, at a point opposite the sound shoulder, as above indicated; indeed I prefer this plan because more convenient.

This sling serves the triple purpose of drawing the lower

end of the arm forward and upward, and thus throwing the injured shoulder backward. It supports the fore-arm and hand in a comfortable and quiet position, and last, it prevents the first bandage from cording under the sound arm by its attachment to its lower margin.

To prevent the first bandage from producing excoriation in the axilla of the sound side, I usually cushion the bandage at this point by stitching on two or three extra thicknesses of the cotton cloth. The same may be done at the loop,—around the arm of the injured side, if necessary.

What is presented, then, for the consideration of the profession in this method is—

1st. The great simplicity of the appliance.

2d. The complete retention of the fragments in apposition.

3d. The comparative ease with which the bandage is worn.

The deformity which takes place in fracture of the clavicle is too well known to require any description; viz., that the shoulder falls downward, forward and inward, and that the outer end of the sternal fragment overlaps the inner end of the acromial portion of the clavicle.

The indications to be fulfilled in the treatment are also well known; viz., to draw the shoulder upward, outward and backward, and retain it there, and thus by virtue of this position, hold the fractured ends in apposition.

It will be observed that the first bandage, as presented in Fig. 1, not only draws the shoulder backward, but has a lifting tendency, the bandage being at a higher point, where it passes over the sound shoulder than where attached to the arm on the injured side, hence the shoulder is drawn upward; also that the deltoid and biceps muscles are quieted by the loop around the arm.

Let the surgeon himself stand erect and thrust backward and upward his own shoulder, the one supposed to be the injured one, and flex the fore-arm upon the chest, with the hand pointing in the direction of the sound shoulder, and he has at once secured the position and fulfilled all the indications desired in fracture of the clavicle; and the bandages presented

in this paper retain this position in a very simple and practical manner.

A patient of mine under treatment for this injury, was brought before the Chicago Medical Society, at one of its regular meetings in May last, after union had taken place;—and I think the gentlemen who were present can say that there was little or no deformity in the case before them.

I also had the privilege of doing what was so much desired before submitting this paper for publication, that of bringing this method before a number of surgeons of high standing in the profession, at the late meeting of the American Medical Association, among whom were Dr. Lewis A. Sayre, of New York; Drs. Gunn and Powell, of Chicago; and Drs. Bridge and Hyde, associate editors of the MEDICAL JOURNAL AND EXAMINER, who approved of the plan laid before them.

I was eager for the opinion of Prof. Sayre, who was the first to put into practice the principle laid down in this method, and the plan received his hearty approval.

I have treated every case of fractured clavicle upon this plan, which I have been called upon to attend for the past two years, modifying the appliance from time to time, until the indications sought after were more perfectly acquired.

At the beginning of the third week, or earlier, the bandages should be removed occasionally, and passive motion of the elbow and shoulder made.

We are of the opinion that judicious movement of all fixed joints has been too long delayed, by most surgeons in cases of fracture. In the fracture presented in this paper, with the bandages used, early movement is indispensable, inasmuch as the parts are held so completely quiet.

And now, if any apology is needed for trying to present a new way for treating an old fracture, the excuse must be found in the fact, that we think the old plans were failures, notwithstanding the many and complicated means devised to secure retention.

Dr. Sayre has quoted, in his pamphlet on this fracture, from a dozen authors, running back to the days of Hippocrates, showing that this injury has always been attended with deformity.

In Prof. Hamilton's work on Fractures and Dislocations, the author quotes from fifty-seven different authors, to sustain his own observations, that this fracture is nearly always followed by deformity.

Miller, Ferguson, Simpson, Hancock, South, and many others of England, and a grand array in other countries, have all had their wedged-shaped pads, and never-ending turns of the bandage around the body, but I cannot see that they accomplished more than to keep the fracture quiet, and thus facilitate a kind of union with, as they all acknowledged, more or less deformity.

South says that he does not like any apparatus which draws the shoulders backward. If the author means both shoulders, we are agreed; but I want one shoulder, and that the injured one, drawn backward and well backward at that,—for herein we get extension and counter extension too, if you please, the thing so essential in fractures of all long bones, and we cannot get this in any other way. The pad under the arm does not cause adequate extension, nor will it ever do so, no matter how large or in what manner placed.

The figure of 8 bandage of modern use, is to me exceedingly objectionable, for one important reason, if for no other. If the fracture is in the middle third of the clavicle, or near the middle at all, the bandage presses down over the site of injury, and particularly over the inner end of the outer fragment, the very end already dragged down by the weight of the shoulder, and just here is one of the valuable points in what we have termed a new method. The injured shoulder is entirely free from any depressing or other bandage. I do not even allow the patient to wear a suspender over the injured shoulder.

DeSault, Dupuytren, Cloquet, Salamon, and Jæger, all carry their bandages over the injured shoulder, and all admit, as they must do, that they get angular deformity.

The "postural position" might do quite well for an indolent man, but even then we might fail in getting union again. This is an age of fresh air and hygiene, and every patient, as far as practicable, should have the advantages of out-door exercise.

I am no stickler for any particular apparatus in the treatment of fracture, any more than I would be for any particular medicine in disease. Whatever accomplishes the end in the most simple manner under existing circumstances, is generally, if not always, the best, and the plan for treating fracture of the clavicle, as presented in this paper, is in keeping with this doctrine, and is brought before the profession with confidence, and we believe that a good result can be attained in the hands of any surgeon, if the method is faithfully and intelligently carried out.

Chicago, August 1st, 1877.

THE APPLICATION OF THE CORN SWEAT IN DISEASE.

By Frank Allport, M. D., of Sycamore, Illinois.

In the February number of the Journal and Examiner, for 1877, appeared a short article on the "Corn Sweat." To that article I must refer those who read this, for the method of administering the "sweat," and confine myself now to its application in disease, and to a brief resumé of a few cases in which it was the chief remedial agent used.

I would not be understood to mean that the true nature of this remedy is to be found only in the "Corn Sweat." There is no particular virtue to be attributed to the corn. It is merely a simple, efficacious and convenient method of administering the principle; viz., "*external heat.*" Perhaps the chief value of external heat is in the treatment of the "pyrexiæ," and among these, it is in scarlet fever that I am more especially prepared to urge its use.

I have treated twenty-six cases of this disease, in which my main reliance was the "Corn Sweat," and have not lost a patient. Among these, only one was left with any of the troublesome sequelæ. This was a slight otorrhœa, which was easily cured in a few days, and in which the "Sweat" was not applied as soon as it should have been. No dropsy occurred in any of them. From my twenty-six cases, I have selected a few of the most typical, of which I will give a brief synopsis.

Case I. A. J., aged 10 years, taken sick Feb. 8th. I was called Feb. 10th, and found a well marked case of scarlet fever, with the exception of the eruption not having yet made its appearance. Patient was delirious; urine suppressed, temperature in axilla 107° F., pulse 144. The severity of the case was at once apparent, and the most active treatment was resolved upon. In three-quarters of an hour, the patient was in a "Corn Sweat," and had taken fifteen drops of the sweet spirits of nitre, and twenty grains of the sulpho-carbolate of sodium. In a quarter of an hour after the "sweat" was commenced, a slight moisture was felt on the surface, which in half an hour developed into a profuse perspiration. The "sweat" lasted about an hour and a half, at which time a distinct rash could be seen all over the body. The temperature was reduced to 102°, and the pulse to 140. The delirium had ceased, although perfect consciousness was not restored, and after the administration of ten drops of sweet spirits of nitre, and ten grains of sulpho-corbolate of sodium, she slept three hours and awoke perfectly conscious, although much prostrated. At this time she passed about a pint and a half of very high colored urine. The eruption was now quite distinct, temp. 103°; pulse 132. The nitre and sodium were ordered, ten grains, and ten drops respectively, every four hours. Calling again in nine hours, I found the patient a little flighty. Only about a quarter of a pint of urine had been passed. Temp. 104°; pulse 136. Another "sweat" was administered, lasting about an hour and a half. Half an hour after it was finished, the temperature stood 102°, and the pulse 120. She now slept quietly six hours, and awoke perfectly conscious. About five o'clock of this day, (Feb. 11th), about 12 hours after the administration of the second "sweat," the patient was in good condition. Temp. 102°; pulse 120. About a quart of urine had been passed since two o'clock, and several smaller discharges before that time, and a free operation from the bowels had occurred. I administered another "sweat," however, which lasted for about an hour, and which reduced the temp. to 101°. She passed a quiet night. She went on to make a good recovery, and in two weeks and one day, after the attack (Feb. 8th), the rash had disappeared, the

patient was up and around the house. I gave her a short "sweat" every day, until Feb. 18th. Administered the nitre and sodium till Feb. 15th, when I substituted for them iron and quinine.

Case II. B. F., aged three years, Nov. 15th, was taken sick in the afternoon. I was immediately called and found the patient, although not very sick as yet, still with some of the symptoms of scarlet fever. At any rate, as the disease was prevalent in the neighborhood, I resolved to treat the child, as if I could diagnosticate scarlet fever without any difficulty. The temperature stood 100°, and the pulse 115.

I prescribed a diuretic, and placed the patient in a "Corn Sweat," not without some trouble, however, as she was so young. I kept her there for about three-quarters of an hour, at the end of which time a faint efflorescence had appeared. The temperature was still 100° and the pulse 110. In about fifteen hours, the temperature had reached 101°, and the pulse 120. The secretion of urine had been scanty and high-colored. I placed the patient again in a "Corn Sweat," which lasted for about an hour. A very free perspiration took place, and the rash was now very bright all over the body. Half an hour after the "sweat," the temperature was 100°; pulse 110. In about ten hours I called again, and found no change. Gave another "sweat" of about half an hour's duration, which made no difference in either temperature or pulse. Between the two last visits, she had had, twice, a plentiful discharge of urine, and an injection of castor oil had produced an evacuation from the bowels. In about twelve hours, after a night of quiet sleep, the temperature was 100°, and the pulse 106. The urine was now plentiful, and the child was doing well in every respect. This was on the third day. The temperature kept steadily at 100° until the seventh day, (with the exception of one day, when it was 101°) when it began to decline, together with the pulse; and a week and a half after she was taken sick, all symptoms of the fever had disappeared. I gave her tonic treatment at the latter end of the disease, under which she made a good recovery.

The case that I am about to describe, is the severest one that

came under my direct observation, and I think illustrates most fully the peculiar efficacy of this remedy in scarlet fever.

Case III. H. C. Aged 12 years. Was taken sick, Jan. 3, with intense headache and vomiting. In a short time delirium, followed by other symptoms of the disease, set in. After the child had been in this condition for two days, during which time no physician saw her, I found her in the state mentioned above. There was a very scanty secretion of urine, and the faintest appearance of a dirty-red efflorescence, here and there on the body. The temperature in the axilla was 109°, and the pulse 156. Here was clearly a case of malignant scarlet fever. I gave ten grains of quinine, and a half a teaspoonful of sweet spirits of nitre, in a wineglassful of brandy. Put the patient into a "corn sweat," which lasted for about two hours. The rash became a trifle more visible, and the temperature was reduced one degree. These were the only changes. In two hours I repeated the operation, the temperature, in the meantime, returning to 109°; and had the satisfaction of seeing it reduced one more degree, (107°); the pulse numbered 152, and the rash rendered still more distinct. I repeated also the doses of nitre and brandy, and gave five grains of quinine. In three hours another "sweat" was given, lasting about an hour and a half; at the end of which the rash came out all over the body, in a scarlet-red hue, and in half an hour the temperature was 103°, and the pulse 140. The patient was now much more quiet, and disposed to sleep. Urine was passed, a short time after the "sweat," quite plentifully. I ordered nitre and quinine, in doses of ten drops, and two grains, respectively. In six hours after the termination of the last "sweat," the temperature having risen to 105°, and the pulse to 148, another "sweat" was given, which lasted an hour and a half, and which reduced the first to 103°, and the latter to 140. A plentiful evacuation of urine had occurred meantime, and an injection of castor oil had produced a free discharge from the bowels. The delirium had disappeared, and the eruption was decided. Ten hours from this the temperature was 105°, and the pulse 148. A "sweat" reduced these to 102° and 136 respectively. Several discharges of urine had taken place meanwhile. She

was still quite rational, and slept well that night. In twelve hours she was in the same condition. The urine was somewhat scanty, and high colored. She had had a small discharge from the bowels, the temperature was 104°, and the pulse 140. Another "sweat" reduced these to 102°, and 132. She had now been sick five days, and was in a fine condition to recover. She did recover at the end of about three weeks, with a slight otorrhœa. I could enumerate many other cases of scarlet fever, in which the efficacy of the "sweat" would, I think, be quite as strikingly shown as in the foregoing.

I have two other cases to submit, one of typhoid fever and the other of dropsy, in which the "corn sweat" was used.

Case IV. A. E., aged 11 years. She had been feeling badly for some days. Had slight headache, and an indisposition to either work or play. Nov. 19th, she took to her bed with diarrhœa, slight tenderness in right iliac region and cough. Temp. 100°; pulse 99. I ordered a mixture containing sweet spirits of nitre, and syrup of ipecac; and powders of Dovers' powder and quinine. During the day her symptoms continued much the same, except that they all, with the exception of the diarrhœa, (which was alleviated) became aggravated. In the evening her temperature was 101°, and her pulse 105. One other symptom was now added to the list, viz., epistaxis.

During the night I was called and found the patient delirious. Temperature 102°; pulse 110. At about two o'clock, had her in a "corn-sweat." She soon began to prespire freely. She was kept in the "sweat" for about two hours, and *before it was completed*, her delirium ceased, and she was laughing and playing with those around her. At about six o'clock that morning, her temperature was 99°, and her pulse 100. I did not find it necessary to give another "sweat." All her untoward symptoms disappeared, and in two or three days she was up and around the house, feeling quite well considering the circumstances.

Case V. J. C., aged 5 years Nov. 24, 1876. Patient was greatly enlarged; œdema was everywhere plainly visible, and the abdomen seemed distended to its fullest capacity. Dyspnœa was very marked and vomiting had taken place.

The child took scarcely any interest in surrounding objects, and would hardly speak, but was still perfectly rational. A subsequent examination of the urine, (of which the secretion was very small), revealed the presence of albumen, renal epithelum, and epithelial casts. I put the patient in a "corn sweat" and ordered elaterium and sweet spirits of nitre, to be administered three times a day. The patient was in the "sweat" for nearly two hours, and had profuse perspiration. I neglected to measure the abdomen, but am convinced its circumference was reduced at least an inch. Another "sweat" was given that evening. I continued them once every day for three days, at which time the patient appeared to be reduced to his normal size. From that time to the present (May, 1877), no dropsical symptoms have appeared. The child is apparently well.

In scarlet fever, it cannot be in the treatment of the *disease per se*, that this measure is valuable, but *in the removal from the body of its poisonous and effete materials* confined by the nature of the affection. By its relaxing powers it compels the blood to seek the surface, at the same time relieving viscerial congestion. *In all fevers*, the muscles and other tissues waste. With the systemic waste the production of carbonic acid, urea, and other excrementitious substances, is increased, yet their means of egress are curtailed. *To meet this emergency, some way of increasing the secretion of urine and perspiration must be found. The external application of heat seems to answer this purpose. It opens the pores of the tightly closed sweat-ducts, and allows the water of the blood, loaded with the products of disease to escape, and by so doing creates an entirely new state of affairs, under which the patient is in an infinitely better condition to recover. Some diuretics, such as sweet spirits of nitre, may also be administered, but the "sweat" will so far relieve renal congestion that a freer secretion of urine will be observed.*

MULTIPLE URETHRAL STRICTURE AND URINARY FISTULÆ—DIVULSION AND URETHROTOMY.

By Alexander Fisher, M. D.

On the 12th of February, 1877, I was called to attend Mr. J., aged 29 years, of a bilious temperament, and he gave me the following history of his case:

Up to the year 1862, he enjoyed fair health, but at the date mentioned, he contracted preputial chancre, which was not treated for nearly one year, the sore discharging most of the time. He then consulted a physician, under whose treatment the sore healed, but in December of 1863 he contracted a gonorrhœa, which lasted for a long time, resulting in a gleet which had never been relieved. In 1871, he first discovered that he could not pass his urine freely, and his physician decided that he had a stricture, though the urethra was not explored, and internal treatment only employed. The straining and dysuria, with the occasional escape of blood and mucus from the urethra, continued without much impairment of the general health, until January, 1875, when the perineum became inflamed, and swelled till a tumor presented as large as the fist, which was opened and gave exit to about a pint of pus. Two days afterward, more than half the quantity of urine excreted passed through the opening, though when making expulsive efforts some water still passed by the urethra. In December, 1875, he had a discharging sore over the tibia of the right leg, which remained open for about one year, and finally closed under the administration of the iodide of potassium, leaving a delicate, slightly pigmented, circular and unattached cicatrix, two inches in diameter.

In June, 1875, the perineal abscess healed, and the urine passed normally for a few months, but in January, 1876, the

perineum and posterior scrotal region became again swollen, and opened in several places, through which urine escaped, in quantity about two-thirds of that evacuated.

At the time of my first examination, he told me that he had a chill every few days, and that he had been thus affected for about two years. His countenance was sallow, skin cool and clammy, tongue coated, bowels constipated, no appetite. In the perineal region, I found a tumor as large as the fœtal head at term, having a transverse diameter of about five inches, and a vertical diameter of six inches, involving the scrotum and perineum, and projecting forwards between the thighs, so as to interfere with the gait. The perineal portion of this was of a stony hardness; the epidermis covering it was hypertrophied, and, at irregular distances upon its surface, could be seen ten or twelve nipple-shaped protuberances containing patulous or closed orifices of as many urethral fistulæ, some in the process of healing and others discharging pus and urine. These gave exit together to more than two-thirds of all the urine secreted; that which escaped from the meatus, only followed severe straining, and was evacuated in a thread-like stream.

Upon exploration of the urethra, I discovered three distinct strictures—one at the meatus, another, commencing about two and a half inches from the meatus, extending to a depth of two inches in the pendulous urethra; a third in the bulbo-membranous portion of the canal, about one inch in length. All these were extremely dense and resilient, and the deepest was so contracted, that after a filiform bougie was introduced, it was grasped tightly in the canal. The stricture at the meatus was so narrow that it would barely admit with force a No. 9 F. bougie. This I incised at once with a bistoury.

He had been taking large doses of the iodide of potassium, and these had produced an intense repugnance to the drug, which had been administered with a view to producing resorption of the tumor. I ordered him to take the muriated tincture of iron with strychnia, and quinia in quantity sufficient to control the chills. His health speedily improved, though he could walk only with difficulty in consequence of the separation of the thighs, necessitated by the tumor.

I endeavored to enter the bladder with a great variety of instruments; these were all arrested, however, at the deepest of the strictures. After perseverence for many hours (at different sittings) a slender, filiform bougie of whalebone was finally seen to escape from one of the fistulous openings in the tumor; evidently the urethral orifice of this fistulous tract had produced a want of correspondence between the portions of the deep urethra on either side of it. After many fruitless attempts to enter the bladder with this instrument, I told the patient, who was a remarkably intelligent artist, to make the attempt himself in the interval of my visits. He had the good fortune to slip the instrument into the bladder on the 24th of March, and at once summoned me. The patient was fully anaesthetized with chloroform by Dr. Hyde, when we threaded the whalebone bougie (which had been carefully held in place ever since its passage into the bladder) into the eye of Thompson's divulsor, and passed the instrument into the bladder, making use of great force, and yet feeling sure that the divulsor followed the guide. Upon widest dilitation of this instrument the strictures did not split, and as a result the operation was bloodless. We then introduced Holt's divulsor, and no distension that this instrument was capable of making, was sufficient to overcome the resiliency of the contracted portion. As a result of the operation the patient became more comfortable, and much less urine flowed through the fistulous openings, but in three days afterward, we could not pass the smallest instrument into the bladder.

In consequence of the general improvement of the patient's condition, and as there was no special urgency in the case, I deferred operating a second time, until the recovery from the effect of the first was complete. On the 31st of March, after making ineffectual attempts for half an hour to introduce a second time the filiform bougie, it again entered the bladder, and the patient being completely anæsthetized by Dr. Hyde, I again threaded Thompson's divulsor upon the bougie, passed it into the bladder, and fully dilated the canal. Immediately thereafter I introduced Maisonneuve's urethrotome, and completely divided the urethra longitudinally from the meatus to

the anterior border of the prostate gland, when a No. 14 (A) sound was readily passed into the bladder.

The next morning the urine was freely and entirely passed through the urethra, and the patient stated that he had not made water so freely in ten years. From that time the fistulous openings in the perineal tumor ceased giving exit to a purulent discharge, and soon commenced to close; while the tumor itself subsided gradually till at this date, May 21st, it is not so large as a goose's egg and is daily growing smaller. The patient has gained twenty-five pounds in actual weight, and expresses himself as feeling quite restored in health.

His only treatment has been the administration of iron and strychnia, with quinine to counteract the miasmatic element in his case, and the repeated introduction of the steel sound in order to insure the continued permeability of the urethra.

The interesting features in this case, which are worthy of note, are, 1st. The possibility of entering with filiform bougies through a canal which is capable of giving exit to but a small moiety of the urine, and that only in a thread-like stream after expulsive efforts; 2d. The small value of distending instruments in resilient strictures; and, 3d. The patience and perseverance which are required in order to pass even a filiform bougie through a stricture which seems to be impermeable.

ON THE SURGICAL TREATMENT OF UTERINE HEMORRHAGE.

By R. Stansbury Sutton, A. M., M. D., Pittsburg, Pa.

To the general practitioner of medicine, nothing is more alarming than excessive uterine hemorrhage. If it occur at, or prior to, the time of labor, from a placenta prævia, the practitioner recognizes the fact and acts in accordance with established principles. But if the hemorrhage occurs at the regular menstrual epochs, or between them, or if it is rarely absent, and a vaginal examination fails to reveal the cause, the medical man is often discouraged, from the fact that the

cause of the hemorrhage is not apparent. In the last ten years it has been my fortune to meet with many cases of uterine hemorrhage. Fortunately they have all recovered. For the successful treatment of hemorrhage of this character, the first great remedy for the gaining of time, both for practitioner and patient, is a tampon. Tampons may be made of almost any material at hand. Soft linen or cotton rags are often employed. Some prefer sponges. These are often oiled before being packed into the vagina. Tampons of these substances thus prepared have been unsatisfactory to me. The tampon has soon become offensive, and required removal, having a foul odor, and adding to the discomfort and danger of the patient. I adopted, long ago, raw cotton as the best substance for the tampon, and pure glycerine as the best substance with which to smear it. The glycerine may be carbolized, but I do not find it necessary. The manner of making this tampon is as follows: unfold the roll of cotton and tear or cut off with scissors a piece 15 or 16 inches long, and as thick as your fore-arm. With the end of a stout string tie the cotton roll firmly 1½ or 2 inches from either end. With the long end of the string proceed as follows: carry it parallel with the cotton roll for two or three inches, and cast a loop around the roll, and thus continue with the string to the end of the roll, when the last loop should be secured with a knot. The tampon is now smeared with glycerine and is ready for use. How will you apply it? If convenient, Sims' speculum may be introduced. If not at hand, having soaped the index and middle finger of the left hand, pass one or both into the vagina, (the patient resting on her side,) turn the palmar surface of the fingers to the perineum and draw the latter *backwards* and *downwards*. All clots having been removed from the vagina, the tampon is now passed into the vagina, with the index finger of the right hand, along the posterior surface of the fingers supporting the perineum. If the tampon is too large to be entirely received, the redundant portion is pulled out of the string, which is left hanging from the vagina. In removing it, it will come away by traction just as regularly as it was introduced, and, in addition to being free from foul odor,

will, if opened up, be found full of dry cotton. The advantages of this tampon are numerous; 1st. It is soft ; 2d. It absorbs blood very slowly; 3d. It is readily introduced; 4th. It is easily removed; 5th. It does not become foul; 6th. If congestion of the uterus is the cause of the bleeding a free drain of serum from the engorged vessels is set up, and soaks into the tampon, and it is therefore in such cases what no other tampon is, viz., *curative.* If, however, it is the choice to prefer some astringent in addition to the glycerine, my habit has been to apply to the mouth of the cervix a bit of cotton, well saturated with a solution of fluid extract of matico and glycerine, and then to apply the tampon in addition. Iron as a styptic is very effectual, as we all know, but it is objectionable for many obvious reasons in these cases. In addition to a good tampon in many cases, Barnes' water bags, sponge and laminaria tents are required to open the way to exploration of the uterine cavity.

In April, 1867, I was called to see Sarah, a colored servant. She was lying in a bed saturated with blood, almost pulseless, tongue pale and flabby. Her age was 48 years. For three or more years she had been occasionally the subject of these bleedings, but until now had been content with the thought that she was undergoing the change of life. An examination revealed a large fibroid polypus attached to the posterior lip of the uterus.

I ordered ergot and stimulants in liberal doses, and tamponed the vagina with soft linen cloths pushed in about the polypus. On the following morning I carried a silver wire, armed with Gooch's canula, around the neck of the polypus and strangulated it. Thirty-six hours later I severed the neck of the polypus below the wire with the scissors and removed it. Nourishing broths, and good nursing with tonics, gradually restored this woman's strength, and several months later I saw her in the city. Dr. E. S. Umstedter assisted me in the removal of the growth. A year after the operation, this woman developed cancer of the breast. She refused any operative procedure until the axillary glands became enlarged, after which I declined to operate. The operation, however, was

done by another, and she died a week afterwards. Gooch's canula and wire have given place to the wire écraseru and galvano-caustic loop, both of which are among the improved surgical instruments.

In the latter part of November, 1871, I was called to see Miss Mc., aged 20. She was a girl of large frame, but emaciated and anemic. She had been confined to bed for several weeks, and her medical attendant had been stricken down with fatal disease. Her history was as follows: At 15 her menses appeared; until eighteen she menstruated regularly and was very stout and active. At this date she found the flow increasing, and her periods less frequent; at the end of a year she had periodical floodings. For two years she has passed almost half her time in bed, and is rarely free from some bleeding. On several occasions during the last year, tampons were required to save her life. On examination, the uterus is very much congested and heavy, the cervix is large and the os patulous; some blood is oozing from it.

The sound passes in $2\frac{7}{8}$ inches, and its introduction is followed by an increase in the flow. The feeling imparted through the sound is that of a rough, velvety surface. I passed into the patulous os a number of sponge tents; upon the removal of these I was able to pass the finger into the uterus, but from the uniform spongy feeling was led to believe that the uterus was lined with granulations, fungous, or, as I may say, polypoid in character. A large button of nitrate of silver was fused upon the end of a platinum probe, and while the mother held Sims' speculum, I cauterized the entire lining membrane of the uterus. When the slough separated, the hemorrhage was so great as to require a tampon to arrest it. Next in order during the winter of 1871-72, I tried styptics of every variety, and in March, 1872, hoped I was near the end of the trouble. The temporary relief was followed in May by a severe hemorrhage, which again put the patient to bed. I now again dilated the cervix, and explored the cavity of the uterus. Nothing new was elicited, but with Sims' curette I scraped out a number of small mucous polypi and rasped off the granular surface; to the now denuded surface I applied undiluted solution of the persulphate of iron. She recovered

from this harsh treatment, and remained free from hemorrhages for a year. During this time her health improved very greatly, but she complained much of prolapsus, and was relieved with Hodge's pessary.

In November, 1874, I was called to see her again. She was in bed, and had just gotten over a prolonged and bloody menstruation. I again scraped out the uterus with the curette, this time finding several mucous polypi. On the third day afterwards, she left her bed on the first floor, in stocking feet and night-gown, and went to the third story for some article she wanted. The day following she had a chill, followed by cellulitis and abscess.

In due time the latter bursted, and she recovered by April, 1875. Having spent the summer in a country district, and taken a course of chalybeate waters, she married, Jan., 1876—thirteen months from the date of the second scraping with the curette. From the date of marriage until Dec. 30th, 1876, she was regular in every particular, when the menstruation ceased. Yesterday I was engaged to attend her in her approaching confinement.

In July, 1873, I was called to see Mrs. M. She was nursing a babe, about three or four months old. She was in bed, very pale and feeble. She said that blood had been "coming and going" from her womb for three weeks. A vaginal examination revealed no cause for it, and I introduced a sponge tent into the cervix. Ten or twelve hours afterwards, I removed the tent, and found in its meshes the remains of a mucous polypus. Believing this might be all, I waited. No further bleeding occurred.

Mrs. H., the mother of two children, called at my office, with her husband, in the summer of 1875, to consult me in regard to her health. Without doubt, her symptoms were those of pregnancy, and she admitted having felt motion, but said she was "unwell every three or four weeks." Her youngest child was 14 years old. She had morning sickness; the areolæ about the nipples were dark; the breasts were enlarged. She had frequent calls to empty the bladder, and leucorrhœa had annoyed her for six or eight weeks. Bi-

manual palpation with percussion, demonstrated an enlarged uterus, with the neck soft and apparently shortened. A speculum was now introduced. The vaginal mucous membrane was red, its rugae enlarged, and in the furrows a white opaque secretion, of creamy consistency, was apparent. But why did she bleed? Withdrawing the cylindrical speculum, I placed her upon her side, and inserted Sims' speculum, trusting her husband to hold it. I seized the anterior lip of the os with a small tenaculum, and, drawing down the cervix, observed a small pear-shaped polypus projecting from the os. It was now seized with a pair of fenestrated forceps, and its slender pedicle twisted off, when a second one was revealed and treated in the same way. These polypi were not glandular or mucous in character, but were abundantly supplied with cellular tissue and vessels. After this date, she did not have any further bleeding, and, at full term, I attended her in her confinement. Her child was a male, and weighed ten pounds.

Miss W. came under my care in the winter of 1871–72. The pelvis was filled with a sub-peritoneal fibroid tumor. Her menstruations were profuse and painful. After considerable trouble and time, I succeeded in dislodging the growth from the cavity of the pelvis. In the April following, the uterus measured in depth $5\frac{1}{2}$ inches. Repeated sub-cutaneous injections of Squibb's extract of ergot, and the maintaining of the organ as free from flexion as possible, by appropriate pledgets of glycerized cotton, which not only assisted in supporting the organ, but drained it constantly, resulted in complete control of the hemorrhage. The uterus, a month ago, was but $2\frac{3}{4}$ inches deep, and menstruation was normal, notwithstanding the fact that the fibroid still exists, though much reduced in size.

Mrs. W., from a neighboring state, consulted me in April, 1875, on account of severe uterine hemorrhage, occurring irregularly. She was 50 years of age, and very large. The uterus was 7 inches deep, and attached to it was a very large sub-peritoneal fibroid tumor. She was ordered Squibb's fluid extract of ergot, and muriate of ammonium. A year later, she sent for me to see her in this city. She had been benefited by the former pre-

scription, but still carried her large tumor. She declined to allow me to measure the uterus. A few weeks after, I was summoned to her in haste, but did not reach her for 12 hours, when I found her exhausted from loss of blood. A medical brother had tamponed her, and doubtless saved her life. I removed the tampon, cleaned out the vagina, and introduced a second tampon. Six or eight hours afterwards, the bleeding began again. The tampon was removed, the uterus found to be 5 inches deep, and losing blood slowly but constantly. A stream of cold water and vinegar was played against the cervix for a few minutes, followed by pure water. Some slight abatement was apparent. I now determined to stop it promptly, and, taking a long urethral syringe, bent its nozzle over the gas, to the proper curve, and filling it with a solution of persulphate of iron, carried it about 4 inches into the uterus and discharged its contents. Not another drop of blood appeared after its withdrawal. For several weeks she took salines and iron, with broths, milk and albuminous substances, and gained strength and flesh. Frequently, I have incidentally met her since, but although a year has passed, she has not had another hemorrhage.

In two cases of menorrhagia, caused by sub-peritoneal fibroids, the vaginal portion of the cervix has been slit up, bilaterally, with great relief to the patient. Whether tension, and consequently irritation, is thus relieved, I leave the reader to judge. The fact remains that it is a remedy in these cases.

In December, 1875, a lady from a Western State came to Pittsburgh on account of severe metrorrhagia, which had been of long duration. The uterus could be felt enlarged. The cervical canal was narrow and long. A sound proved the uterus three inches deep. The cervix was fully dilated with sponge tents, and a small submucous fibroid was enucleated. Her subsequent menstruations were normal.

Recently this patient writes me that her trouble is returning, and it is probable that the cause is another small fibroid.

In March, 1877, Mrs. D. consulted me on account of an irregularity in her menses. She did not complain so much of the loss of a great quantity of blood, as on account of the

tardy disappearance of the flow, and the fact that it returned after apparent cessation. She had been married several years, and had no children. The cervix was very long and hard, and the os small. I slit up the cervix bilaterally to the vaginal attachment, and cut off with scissors the divided sides of the cervix. To one of these pieces I found attached a mucous polypus which probably accounted for the trouble. Since then she has menstruated naturally. The operation has left the os more open and made her more liable to pregnancy.

May, 1877.

Clinical Reports.

COOK COUNTY HOSPITAL.

Services of Dr. H. A. Johnson.

(Reported by Dr. Park, House Physician.)

Lead Poisoning.

Case I. Lizzie C., aged 21, domestic. Admitted March 5th, 1877.

For three years she was in the habit of using the cosmetic known as "flake white," being ignorant of its deleterious properties. Has never been very robust, though enjoying ordinary good health in spite of attacks of scarlatina, typhoid fever, and trivial troubles, along with backache, leucorrhœa, and other disorders peculiar to her sex. One year ago, while suffering from typhoid fever, during the early stages of which she was salivated, she noticed sudden pain in hands and arms, followed by inability to use the hands. Recovery from the fever was not followed by return of manual power, though at times there has been partial improvement.

On admission she is evidently laboring under some cachexia; bowels are costive, tongue with a heavy white coat, appetite very poor. There is the characteristic line along the gums, marked fetor of breath, and paralysis of the extensors of both hands. There is considerable gastric irritability, with a

feeling of oppression over hypogastrium; her menses have been absent for four months.

The treatment at first consisted of magnesium sulphate ʒss, sulphuric acid dil. fʒss, ter in die, with anodynes and carminatives as needed. Since her admission the treatment has been changed to nitro-muriatic acid, and again to potassic iodide. There has been a gradual amelioration of the symptons; the menstrual flow is now regular; the other excretory functions performed with ease and regularity. She has gained in flesh and spirits. The only vestiges of her former trouble are a faint line about the gums, and the drooping hands, which she has not yet the power to raise. The treatment to-day (Aug. 5th,) consists of tonics, sulphur baths and the induced current.

Case II. Susie A., a cyprian, aged 19. Admitted August 1st, 1877.

The history of this case is very similiar to that detailed above, the cosmetic used being the same, the period of its use only one year, and the method of applying it being to mix the powder with glycerine. The onset of the symptons was also similar, lassitude, weakness of the limbs, pain in the same, obstinate constipation, and paralysis of the extensors of the hand.

On admission; she is poorly nourished, skin sallow and clammy, functions of alimentary canal deranged, limbs almost useless, drooping hands, blue line about the gums, pulse 126 and small.

She was given a general tonic treatment of strychnia, mineral acids and bitter tonics, and the sulphate of magnesium as an eliminant.

Within a week she has manifested some improvement, but the time has been too short to warrant anything but a favorable prognosis.

Mercurial Erethism.

Henry B., native of Belgium, aged 18. Admitted June 21st, 1877.

For six months patient has been employed in a looking-

glass factory, constantly handling the amalgam and exposed to its noxious influence. About six weeks ago he began to have severe headache, and his muscles to become very tremulous. Soon after appeared a profuse papular eruption over the whole surface of his body. His gums then became tender and mastication difficult. On admission; is well nourished, appetite and sleep good, tongue clean and moist, bowels regular, urine normal, skin natural. He complains of pain in the head; and the muscles of the extremities are in a peculiarly tremulous condition whenever he exerts them, and they have lost some of their tone as shown by the use of the dynamometer. The breath is not fetid, there is no salivary flow, and the gums only slightly altered in appearance.

He was given a sulphur bath every day, potassic iodide as an eliminant, and laxatives and anodynes as needed.

He made a rapid improvement as far as the muscular tremors were concerned, but as these symptoms wore away he began to show symptoms of hysteria, and slight, and finally acute, mania. Now (on the 7th of August,) he appears as stout and vigorous as could be desired; his muscles are firm, there are no tremors, the gums are no longer sore, the appetite is good, and he is the picture of health. It is only seldom now that he gives way to the crying fits and delusions which so troubled him two weeks ago.

RUSH MEDICAL COLLEGE CLINIC.

Service of Prof. Moses Gunn.

(Reported by Edmund M. Landis, M. D.)

Lateral Curvature.

C. F., German, aged 15, is a poorly nourished lad, whose appetite is good, but who eats sparingly of fats. He states that he was well up to four months ago, when he first noticed pain in his right side, which began to be crooked, and that his breathing was embarrassed.

On examination, find a lateral curvature to the right side, and a prominence in the dorsal vertebral region. On stooping, at request, to pick up an article from the floor, he bends over with ease and freedom. This little experiment at once dismisses the suspicion of disease of the vertebræ, and we have lateral curvature resulting in a corresponding angle at the back, causing the suspicious prominence noticed at first. The respiratory movement of the chest seems good, yet the patient complains that he cannot breathe well. On making pressure on the chest, find that we can materially restore its natural shape.

The question, in this case, is whether we shall advise the usual apparatus, or suspension by the arms and hands from a swing. [See a paper on suspension as a means of treatment in Spinal Distortions, by Benjamin Lee, M. D., of Philadelphia, read before the last meeting of the American Medical Association, by Dr. Frank Woodward, of Philadelphia.] We have a case under treatment for whom a modification of both apparatus and swing is being used. The patient had double lateral curvature, and the bowing in on the left side was so great that the chest could almost be spanned with the fingers. The respiration of the left side was much embarrassed. The only means of treatment had been a stiff corset, which tightly compressed the chest. An apparatus was made for this patient, the essential features of which were a pelvic band or girth, a part which corresponded to the natural curve of the spine, and armlets or crutches to support the arms, and to keep the shoulders back. This made no pressure on the chest. With this, the child was put in the swing and made to frequently inspire and expire as fully as she could. Full diet was ordered.

That child has steadily improved, the curvature is being reduced, and the embarrassed breathing relieved.

In this case we would hardly recommend an apparatus, as a swing would be all sufficient.

Epithelioma.

J. B. W., aged 58, German, farmer. The patient, whose previous health had been good, states that he first noticed, some two or three years ago, in the right side of the mouth, close to the gums, a small whitish looking, painless ulcer, which he thought to be a simple sore. This not disappearing he consulted a physician, who treated it for sometime without success, and finally cauterized it. After this the sore began to spread, ulcerate and pain,—the pain being of a sharp, shooting character. He had several teeth extracted, hoping by their removal to gain some benefit. The sore continued to enlarge and spread. Three months ago he consulted a physician, who pronounced the disease carcinoma.

On examination, find an infiltration in the right cheek, extending within and without, covering an area of about two inches, and approaching the angle of the lips. It is fixed, immovable and ulcerated internally and externally. The gums about the disease, and also on the opposite side of the jaw, present a number of whitish looking deposits, or patches. There is some pus, but no ichorous discharge. The alveolar process is involved, and we find it softened, broken down, and filled with sinuses, the disease also spreading to the soft parts on the inside of the mouth. On probing with several probes in different directions, find that one of them passes clear through the cheek, and alveolar process to the side of the tongue.

We have here an example of epithelioma a little out of the general type. Its advent, progress and present appearance, are singular. It began in the duplicature of the mucous membrane just where it begins to be reflected upon the gums, commencing, as is now observed, with a thickened condition of the mucous membrane, as a number of patches of a snowy white appearance. Epithelioma does not usually begin in the mucous membrane as a white degeneration. Seen at the first glance, one would call it a diphtheritic deposit, but on examination find it a part of the mucous membrane. The patient complains of a soreness which is characteristic of pus, and pus is found, but the ichorous discharge which we would expect is

absent. The characteristic pain is present, and the disease is apparently spreading to the opposite side.

If an operation were made it would be necessary to remove the whole of that part of the jaw involved in the disease, and we have examined the case with reference to this, and find that a section made through the symphisis menti, and another as far back as the first molar teeth, would accomplish the object.

The large amount of the soft parts of the cheek which would be involved in the operation would make a gape, that would be difficult to close. But even if we were successful in this, on account of the liability of a disease to return, which has progressed so far and attained to such a degree as this, we cannot conscientiously recommend the operation.

We inferred that in the first stage of this disease the whitened condition of the mucous membrane was singular. This is not the case in the later stages. Remember having removed an epulis, where the patient came back after a few weeks with a return of the disease, when this same whitened thickened condition of the mucous membrane was present.

NOTES FROM PRIVATE PRACTICE.

The poisonous effects of arnica.

Mr. L——, a healthy gentleman, of excellent habits, and with no specific cachexia, slightly injured his knee by falling on the sidewalk, while attempting to reach the street cars. Partly to quiet the pain, and partly to follow a very fashionable and orthodox custom prevalent among a majority of the people, he purchased at one of our best drug stores, a two-ounce bottle of tincture of arnica, the contents of which he applied to the knee. In this application no particular attention was given to the quantity used, and some of the tincture trickled down the leg, and a small amount of it came in contact with the fingers, especially between them. During the night the affected limb, swathed in a cloth saturated with the arnica,

came in contact with the inner part of the other leg, and at some time, probably while applying the lotion in the evening, the patient's fingers came in contact with his eyelids. In the morning every part of the integument which had been touched with the arnica, was slightly red and swollen—erythematous. I was immediately summoned, October 17th, and ordered salines, a cooling lotion and rest. 18th, swelling and redness increased—some fever. 19th, vesicles between fingers and upon left knee. 20th, vesicles upon portions of all the integuments (except eyelids) with which the arnica had come in contact—eczema. 22d, eye nearly well; integuments less swollen; considerable itching and burning; pustules around the margins of affected parts. 23d, intense itching and burning of the surface of the thorax and abdomen. An examination showed a profuse redness or vascular congestion of the entire surface, and the presence of what Wilson would probably call eczema erythematosum. 24th to 28th, eruption on body disappearing; crusts forming on leg; fingers nearly well. 29th to 31st, crusts clearing; pruritus disappearing; new skin looking healthy; patient discharged.

This gentleman, without doubt, from the external use of the arnica, had an acute eczema running through the different stages of hyperæmia, increased sensibility, infiltration, vesiculation, incrustation and degeneration, terminating at about the usual time. The constitutional disturbances were greater than is usual, as was shown by the eczema erythematosum, which took place the sixth day, and by the excoriated and ulcerated patches which continued for two or three weeks after his discharge. I should mention, perhaps, that some two or three years ago, I treated the same gentleman for a slight eczema on the hand, and it is perhaps in these people who have, as it were, an eczematous diathesis that this unusual susceptibility of the skin is present. Until this case occurred, in my own practice, I was ignorant of the fact that arnica applied externally ever produced poisoned effects. I considered it a domestic remedy used very generally without the advice of a physician, and supposed it perfectly harmless. I find, however, that Fox, in speaking of medicinal rashes, says, "Arnica may produce erythema and swelling of the part to

which it is applied, or it may excite a real eczema." And Hebra, in his article on erythema nodosum, speaks as follows: "Some medical men, however, suppose that the tincture of arnica is a perfectly harmless remedy in erythema nodosum, and in similar affections. But I would give a friendly warning to those who advocate its use, unless, indeed, they propose to use it homœopathically, and in infinitessimal doses. In the proportion of a drop of the tincture to a pail of water, this substance may certainly be applied without any risk of doing harm. But I have in practice had abundant reason to observe that the tincture of arnica, even when much diluted, acts most injuriously upon the skin of some persons. I have frequently seen eczema or dermatitis excited by the assiduous application of lotions containing this drug in the treatment of slight bruises or sprains." In the *Medical and Surgical Journal*, of Boston, Jan. 21st, 1875, Dr. Jas. C. White reports three cases, somewhat similar to mine. His patients had received injuries of some severity, and following the ancient and honorable custom, applied arnica, which in every case produced hyperæmia, vesicles, etc., in regular order. In view of the universal belief of the harmlessness of this drug, it seems best to place on record well attested facts in regard to its poisonous effects on, at least, a certain number of those who use it.

Chas. W. Earle, M. D.

No. 37 Park Avenue.

Atresia Vaginæ with Retention of the Menses.

Mrs. H. came under my observation thirteen months after the birth of her first child. The attending physician in her confinement found the hymen unruptured, and he could only, with great difficulty, force the index finger into the vagina.

The labor was natural, and in its progress the hymen was ruptured without any interference.

The patient made a good recovery; no sloughing or other bad symptom followed, and the lochia, which was not very abundant, ceased in ten days. About the ninth month after delivery, she had all the symptoms of menstruation with the exception that there was no discharge.

A month later, there was again the menstrual molimen present, with pain and more general disturbance. With each succeeding month, the pain increased and was, as she described it, like colic. The pain, each time, was caused probably by the distention of the vagina, and the contraction of the uterus in its efforts to expel its contents. She suffered but little inconvenience during the intervals between the menstrual periods. Examination of the patient, four months after menstruation began, disclosed a small tumor as high as the umbilicus, which proved to be the uterus. Upon attempting vaginal examination, I found the opening occluded just within the internal labia. Inspection disclosed a firm star-like, or radiated cicatrix at the site of the hymen, or carunculæ myrtiformes. Further examination per rectum disclosed an elastic tumor, impinging upon the rectum and extending upward, beyond exploration in that direction.

There was no doubt as to the correct diagnosis of the case. The vagina had been hermetically sealed by the reunion of the forcibly ruptured hymen. The accumulated menstrual flow had distended the vagina, and pushed the uterus up out of the pelvis.

The following plan of treatment was pursued. Having introduced a catheter into the bladder, and the index finger of the left hand into the rectum as guides, a trocar and canula were then pushed through the center of the cicatrix, into the distended vagina. On the withdrawal of the trocar, there began to flow through the canula, a thick black fluid, resembling tar or treacle. The canula was then removed, and the opening dilated; first with one finger, then with the index finger of each hand, the force being applied in opposite directions. The contents were soon discharged through the ample opening with aid of a little pressure over the abdomen.

The vagina was then washed out with a weak solution of carbolic acid and warm water. The parts were kept from contracting by the introduction of a good sized glass pestle, which was retained in situ by a T bandage. The patient made a good recovery without one bad symptom. There is a question as to the safest method of discharging the retained men-

ses; whether at once by full, free opening, or by a small one, permitting the fluid to dribble away *guttatim*. The discharge of this fluid is by no means unattended with danger, as death has followed the operation for relief of retention, caused by an imperforate hymen. The different methods of operating by free incision, or forcible dilation, to prevent contraction and reclosure, have each their advocates. In this case forcible dilation was followed by little tendency to contract.

Olina, Ill. T. J. MAXWELL, M. D.

A Case of Belladonna-poisoning—Recovery.

August 3d. Was called about 10:30 A. M. to see Corda R., aged 3½ years. When I arrived the child was apparently sleeping soundly. Pulse, 130; respirations, 20 per minute; the entire surface of the body was covered with a very bright scarlatinal eruption, with occasionally livid spots of variable size. Upon lifting the eyelids, found the pupils dilated to such an extent that only a very small circle of the irides remained visible.

The mother stated that the child had a chill on the day previous, and that she had given a large teaspoonful of quinine mixture, (quinine sulph. 3j, syrup glycyrrhiz. ℥j) at 8 o'clock, to prevent the recurrence of the chill. In a few minutes after taking the dose the child had vomited slightly, and in less than an hour after she commenced having spasms, which continued, alternated with periods of repose until my arrival, two hours and a half later.

Upon examining the supposed quinine mixture, it proved to be fluid extract of belladonna, which the mother had used locally, some time prior to this, for the purpose of suppressing a threatened mammary abscess.

The diagnosis being settled, I gave the patient a teaspoonful of ground mustard, mixed with water, repeating the dose in a few minutes, but the imperfect deglutition rendered the administration very difficult. It was followed, however, in a short time by rather imperfect emesis. I then determined to test the antidotal powers of opium.

At 11 A. M. injected $\frac{1}{8}$ grain of acet. morph. hypodermically in right arm, and gave a teaspoonful of a strong solution of tannic acid by the mouth every half hour. Patient slept soundly directly after the injection, except frequent slight subsultus, and the slightest touch on the finger tips would produce profound digital flexion. Pulse 126, during sleep; 2 P. M., patient aroused voluntarily, talks a great deal in a thick, gruff voice. Rash entirely disappeared. Right pupil slightly contracted; left very large; very restless; injected $\frac{1}{12}$ gr. acet. morph. in left arm; continued solution of tannin.

4. P. M. Very restless; wants to walk about, but is unable to stand alone, becoming delirious, laughing wildly one moment, screaming and clutching with fright the next. Muscular incoördination in reaching for anything. Will overreach or fall short of the object; has lost all idea of distance; power of articulation destroyed. Tongue appears greatly swollen.

Rash has appeared again over the entire body, more marked at flexion of joints. Pupils intensely dilated; morbid sensitiveness to sounds and objects; is terribly frightened at objects lying about. Afraid of visitors, shrinking from them and screaming wildly; insatiable thirst; motions and calls for water incessantly, but swallows it with difficulty.

6 P. M. No better; injected $\frac{1}{8}$ grain acet. morph. in right arm.

8 P. M. Fully under influence of last injection; resting, except occasional tossing and rolling about; subsultus tendinum when quiet; pulse, 130.

10 P. M. Aroused patient—still wild and grasping at everything. Pupils slightly contracted, with diverging strabismus. Pulse, 128; respirations very slow; allowed patient to sleep again.

At midnight patient sleeping soundly; pulse, 126: respirations quite slow, with crowing sound on inspiration; becomes very rigid when aroused; relaxed when sleeping; rash disappeared again, giving solution of tannin every hour; roused the patient occasionally until 2 A. M., when she awoke—Talks much; articulation more distinct; calls constantly for water; gave olei olivae, olei ricini, āā, a teaspoonful

every hour; discontinued solution of tannin and injected $\frac{1}{12}$ gr. acet. morph. in left arm.

4 A. M. Roused up and passed a large quantity of dark colored urine; pulse, 115; profuse perspiration with warm surface; remained about the same until 8 A. M., when the bowels operated freely.

10 A. M. Patient roused up much improved; disposed to play; pupils almost normal, dilating readily in the dark; contracting tardidly, when exposed to light; voice nearly normal; pulse, 96.

12 M. Twenty-eight hours after taking the belladonna all traces of it have disappeared; pulse, 90; pupil normal, but dilating readily; everything appears to indicate a rapid and permanent recovery.

Oakland, Ill. J. D. WHITLEY, M.D.

Editorial.

SCIENCE AND POLITICS.

In our issue for October of last year, we published a somewhat extended editorial notice of the Chicago Botanical Garden, in which, speaking for the medical profession of the city, we expressed our satisfaction with the work already accomplished by the Directors, and commended the object they had in view to all who were interested in the study of science.

Since that date, those who have visited the south-eastern corner of the northern of the two south parks, have noticed with pleasure the labor expended in the cultivation of the more than one thousand beds—fifteen acres—of plants arranged in their natural order, as well as the luxuriant development of the flora in the four hot-houses.

And here we have to present the resolutions lately passed by the Board of South Park Commissioners, which are subjoined:

WHEREAS, The great stagnation in all industrial enterprises of our country has made taxation at this time specially burdensome, therefore

the Commissioners called for a smaller sum of money for park purposes than the Board had done in former years, rendering a corresponding curtailment in our expenditures absolutely necessary; therefore,

Resolved, That the further operations of the Botanical Department are hereby suspended, and the garden placed under the general management of the Floral Department of the park, with direction to the Superintendent to take charge of and preserve all its valuable plants, flowers, seeds, and other property, until a change in the times shall warrant this Board in expending the necessary means to carry out such an enterprise.

Resolved, That the Secretary is hereby instructed to send a copy of this preamble and resolution to the President and Directors of the Botanical Gardens, and to express the thanks of this Committee to the same, and particularly to Prof. H. H. Babcock for the great energy and skill manifested by him, as well as the regrets of this Board at being obliged to suspend their good work.

To this summary action of the Park Commissioners the gentlemen entrusted with the management of the Botanical Gardens have filed the following protest:

CHICAGO, August 6.—The undersigned, who were invited and appointed by the Board of South Park Commissioners to undertake the establishment, management, and direction of a Botanical Garden in the South Park, do hereby earnestly protest against the action of the said Board as set forth in the preamble and resolutions copied above, for the following reasons; viz.,

First. Because said action was taken at a meeting from which we, as well as the public and reporters for the press, were excluded.

Second. Because we have reason to believe that said action was not, as stated in the preamble, based upon considerations of economy in the expenditure of public money, but is the result of machinations whose object has been the defeat of the enterprise, against which we have been obliged to contend from the inception of the Garden, and which the Board has taken no efficient means to prevent.

Third. Because said action, though nominally a suspension, is virtually the abandonment of the Chicago Botanical Garden as a scientific establishment.

Fourth. Because such action of the Board in appropriating to general park purposes material solicited and contributed for scientific uses, obtainable from no other sources, and by no other means than those adopted, is a gross breach of faith and honor, rendering us powerless to fulfill the promise, made with the approval of the Board, to make returns in kind for the contributions we have received from all parts of the civilized world, and for which it is impossible for the Board to render an equivalent.

Fifth. Because we regard said action of the Board of South Park Commissioners as a serious blow to the advancement of science in Chicago and the Northwest—a bar to the inauguration of any similar enterprise in

our section, and a blot upon the fair fame of our city and country; so that hereafter no resident of Chicago can visit the galleries of other countries without a blush of shame at the ignoble termination of our own, after the expenditure of so much money, and when in the full tide of successful progress.

H. N. Hibbard, William Bross,
H. H. Babcock, E. H. Sargent,
A. E. Ebert.

No part of the protest filed by the Directors of the Botanical Garden deserves greater consideration than that which describes the evident breach of faith and honor, which the discontinuance of the Garden necessitates. The existence and remarkable development of the latter, has been rendered possible only by an adoption of the most generous system of exchanges on the part of numerous foreign institutions as well as individuals who, in many cases, were ready to wait for a return till the Chicago enterprise had become fully established. The truth is that the Chicago Garden has found some of its warmest advocates and friends outside of its own home. And what is the deplorable result? A deliberate repudiation of obligation, a repudiation, precisely such as those to which the foreign capitalist is disposed to make a pointed reference, whenever he is solicited to invest in American securities!

Let us look such contingencies as these squarely in the face. The little lesson we have to learn and impress upon the scientific world is this, that in a Republic such as ours, art, literature and science can never flourish under the protection of political influence. However brilliant may have been their conquests under the patronage of such men as the Princes of Florence, the Louis of France, and even the Pontiffs of the conservative Church of Rome, we must admit that in this country the upas-tree of "politics" casts a deadly shadow upon that which aspires to bloom beneath its branches. What species of fruit has ripened to maturity beneath its shadow in the past? In the field of literature we can point to the various government reports, which are generally sold for waste paper; and the two latest productions of the pen of the American politician, "Why we laugh" and "How to play poker." In the art studies of the government, we have to be

satisfied with such grotesque absurdities as can be seen in the rotunda of the National Capitol. Look at the bold design impressed upon the coins of the country; analyze the architectural effects in the average government building, and in what respect has science been benefited by its occasional sustentation by the state? The Agricultural Bureau, according to the *New York Nation*, of August, has been "for years, the laughing stock of the newspapers" of the land. Fortunately for the name of the medical profession in this country, the general suspicion of political influence has never menaced the Surgeon Generals' Office at Washington, and the results have been correspondingly superb. The latest production of politics in medicine is the recently published Government Report on the *Cholera Epidemic of* 1873, and of this work it is scarcely necessary to remark that when Dr. Max von Pettenkofer finished with it in the London *Practitioner*, (Feb. and March, 1877), the only part of it left was the tail—Dr. Billings' excellent Bibliography.

We have no objection to urge against the constitution and functions of our own newly-organized State Board of Health, being unwilling to obstruct its first steps by adverse criticism, but content ourselves for the present, with remarking that in general, an alliance between medicine and the state has resulted, at least in this country, disastrously to the former.

We cannot, therefore, but deplore the issue in the matter of the Chicago Botanical Garden, regarding it in the language of the protest, as a "blot upon the fair fame of our city and country." Let us, however, learn the lesson well. With us, science and politics must be eternally divorced. For the children of such a union will be suckled, like Romulus and Remus, by a she wolf—a wolf that resembles the *lupus exedens* of the pathologist, in that it is ready to destroy all the beauty and excellence to which they may aspire.

The Illinois State Board of Health is now issuing licenses to the physicians of this State, according to the new law, which was published in our last number. Many physicians misunderstand the scope and intent of this law, which we wish might

have been a better one. The various western States are agitated over special legislation on the subject of our profession. Doctors are greatly divided in their opinions as to the feasibility of any special legislation for themselves. Some contend that no law is needed to regulate the practice of medicine and surgery. Others as stoutly clamor for protection against charlatanism. It will not be five years before every western State will have a medical bill. California has the best of those we know, and it seems to work well. Illinois has one now, and we must make the best of it. Many of our Illinois physicians seem not to understand it.

They feel astonished that *physicians with diplomas* should be passed upon by a Board created by law; they feel rebellious, pugnacious. Some Doctors insinuate that the Colleges are the gainers by this law. Some urge one objection and others urge another, while but few seem to comprehend the wonderful advantages resulting from this law, imperfect as it is, which are these:

A. This new law gives all educated physicians the power to protect themselves and elevate the standard of the profession, which they never before had. In less than twelve months every County Clerk in Illinois will have recorded the license of all physicians practicing in his county. Every new comer can be investigated, by any man choosing to ascertain if the former is registered, by inspecting the County Clerk's record. If he be registered, well and good; if not, the County Attorney, in obedience to instructions from the State Board, will prosecute the new comer, who must show that he is a graduate, or "move on." Thus the profession can keep out of Illinois all uneducated, ungraduated men.

B. After January 1st., prox., physicians, in collecting fees in courts, must show that THEY are law-abiding citizens, in that THEY have qualified by conforming to the laws of the State—in short, that they are licensed practitioners of medicine and surgery. Failing in this, they will suffer immensely in their suit and be greatly embarrassed.

C. All advertising specialists and traveling quacks can be suppressed, by licensed physicians entering complaint to the

State Board against them, alleging that they are violating the "code," and the Board will at once recall licenses issued to those thus giving offense. As long as the earth stands there will be charlatans, and no law can be framed that will completely annihilate them. Quacks are such by NATURE. Doctors must always expect to be pestered by this sort of vermin. This new law places in our hands, *for the first time in our State history*, the possibility of dealing summarily with all forms of quackery. The "codes" of all schools are agreed as to what is "professional conduct."

From the foregoing, it can be seen that if the profession throughout Illinois will cheerfully come forward and array themselves on the side of law and order, give their hearty and united moral support to this Board of Health, the standing of physicians will be greatly enhanced thereby, and they only will be the gainers. On the general principle of opposition to special legislation, the Colleges, so far as is known, were opposed to the bill, and the fact that eight separate medical bills were introduced in the legislature last winter, and but *one* (and an imperfect one) passed, shows that there was no endeavor on the part of Colleges to secure the enactment of this law.

The best method for Illinois physicians to pursue, is to comply with the law, by sending to the President of the Board, Dr. J. H. Rauch, No. 202 State Street, Chicago, for a blank affidavit, and executing it at once. If the physician has *not* practiced in Illinois ten years, he *must send his diploma with the executed affidavit* to some member of the board, accompanying it with the license fee of one dollar ($1.00), and he will, in a few days, receive his diploma and certificate in due form and order. While it is not necessary for practitioners of over ten years standing to send their diplomas with their affidavits, still it is better to send their parchment in, so that they can be *recorded* as physicians with diplomas. It places them in a better light before the public and gives them a higher standing.

Any physician having practiced in Illinois more than ten years, will save trouble by sending his certificate. The ten year clause in the law *does not absolve any physician from*

making affidavit. The Board, fortified by the opinion of the Attorney General, will, after January 1st, 1878, *compel* every old practitioner who claims exemption by the ten year clause, to make affidavit that he has practiced ten years. The Board does not *know* that A, B, or C, has been in practice ten years or longer; it *knows* only what is corroborated by affidavits. Thus it will be seen every practitioner has to comply with the law. The Board now *asks* every doctor to comply with the law. After January first proximo, it will *demand* what is now *asked*, and, not receiving it, will inflict the penalties. Now is the time for the profession in this State to rise in their might and unite against quackery in all of its forms. It can successfully be done by nothing short of a united front, and combined effort and determination.

Correspondence.

LETTER FROM EDINBURGH—MR. LISTER AND HIS ANTISEPTIC METHOD—HIS REMOVAL FROM EDINBURGH TO LONDON, AND ACCEPTANCE OF A POSITION IN KING'S COLLEGE.

To the Editor of the Chicago Med. Journal and Examiner:

Whatever may be the opinion of the profession at large, as to the merits of Mr. Lister's ideas on the subject of his antiseptic treatment in surgery, he has certainly achieved an enviable reputation at home.

Even the emperor, Dom Pedro, during his flying visit to this city, paid him the compliment of calling at the infirmary to witness his antiseptic dressings, as applied in the wards.

As your readers are probably aware, Mr. Lister has lately accepted a position at King's College, London, and will sever his connection with the University of Edinburgh at the close of the present term, and will then move to London, and make that his permanent residence.

As the school to which he goes is much smaller than the one here, and the number of beds of which he will have charge

fewer than those he here controls, some surprise has been expressed by his friends at his accepting his new position.

His reply is that he hopes in London to be able to diffuse more widely his views on the germ theory of the contamination of open wounds after surgical operations.

Though his practice here is a very lucrative one, having inherited a large fortune from his father, he is able to leave out of the question the matter of money in his contemplated move.

He claims that the reason why such varied results are obtained by those who attempt to practice antiseptic surgery, is that some are not sufficiently imbued with its importance to carry out its teachings in all their minutiæ, and that a certain other number attempt its practice without being sufficiently well informed on the subject to be able to operate as he directs.

As an illustration of the latter class, he mentioned to me the name of a New York professor who only remained in Edinburgh a single day, imagined that he comprehended the whole subject, but when he returned home and began its practice, he failed to obtain satisfactory results, and raised the cry of humbug; when Mr. Lister says positively that he knows from the character of some of his criticisms that he never understood the subject sufficiently well to practice it intelligently.

To illustrate the extreme care that is necessary in the practice of antiseptic surgery, he related to me the following case. He was opening under the spray a psoas abscess, the result of disease of the spine. His assistant who was working the spray apparatus, becoming annoyed at a student behind him, and kicking at him, allowed the jet of spray for just an instant to be so directed as not to cover the opening he had just made. In great anger the doctor told his assistant that if that patient died he might consider himself the cause of her death.

She did die, and Mr. Lister believes that the misdirection of that jet of spray for the small fraction of a minute was the cause of her death.

It is in this last mentioned disease that Mr. Lister claims the most eminent success for his treatment.

That it is the contamination of the diseased parts by septic germs that gain access to the diseased surface after the ordinary modes of opening the abscess, or allowing them to discharge themselves, is proven by the increased gravity of the symptoms that almost uniformly follow such discharge.

He opens these abscesses antiseptically as soon as possible, cutting down deeply, if necessary, puts on his antiseptic dressings, always changing them under the spray; and keeps his patient quietly in bed until the parts heal, which he claims they very uniformily do. He puts in a Chassaignac's drainage tube, which he allows to remain during the whole treatment, cutting it shorter as the parts heal from the bottom.

To show some of the results of antiseptic surgery as done by Mr. Lister, I have taken the following notes from cases in the wards of the infirmary, which cases I visited every day, and recorded the temperature myself.

John A., aged 23, amputation of the femur at the union of the lower and middle third for malignant disease of the knee joint. Highest temperature, $99\frac{4}{10}^{\circ}$ Far.; never but little acceleration of pulse.

William G., aged 14; excision of knee joint for anchylosis, accompanied by extreme flexion. This case was a very difficult one, indeed, requiring tenotomy, and the removal of a large section of the femur. Highest temperature, $100\frac{3}{10}^{\circ}$ Far.

Next case was that of William G., aged 34. Amputation at the hip joint for a chondroma of the upper portion of the femur. Highest temperature, $99\frac{4}{10}^{\circ}$ Far.

The patient was perfectly comfortable after twenty-four hours, and went on to convalescence without an untoward symptom.

Mr. Lister insists that all surgical operations, except in rare cases, should be performed in the most slow and deliberate manner. He says that Mr. Liston introduced the dashing mode of operating into this country, much to the detriment, as he thinks, of the patients he operated on. In the case detailed above of excision of the knee joint, he was one hour and a half in performing the operation.

W. S. Caldwell, M. D., of Warren, Ill.

Edinburgh, July, 1877.

Reviews and Book Notices.

Guy's Hospital Reports; Third Series, Vol. XXII. Published by *J. & A. Churchill*, New Burlington St., London, 1877.

The first article in this Report is by the veteran Edward Cock, on the laws governing the induration of primary syphilitic sores. From extensive personal observation, he asserts that the greatest induration occurs when the sores are situated on regions possessing the greatest amount of loose areolar tissue. Hence upon the prepuce induration proceeds to the greatest extent; on the body of the penis it is much less, and on the surface of the glans least of all.

From comparison of a vast number of recorded cases of syphilis, Mr. Cock concludes that the location of the chancre has a very important influence on the obstinacy and severity of the secondary symptoms, and in the following order:

1. Chancres on the outer edge of the prepuce have very slight secondary symptoms, but produce somewhat severer ones if they are near its base.

2. Sores on the body of the penis are followed by more severe secondary consequences, and still more so as the sore is nearer the pubis.

3. Chancres on the glans produce more secondary symptoms than those on the prepuce, or on the body of the penis, and, if situated in the groove behind the corona, the secondary results are the worst of all.

4. These inductions seem to imply that secondary syphilis is severe in proportion to the closeness of the anatomical relations of the chancre with the general system.

If these points shall be established they will prove germ thoughts, from which will spring a harvest of practical deductions.

The second article is by Samuel Wilks, M. D., on cerebritis, hysteria, and bulbar paralysis.

Dr. George H. Savage follows in an essay on "Some Relations of mental disease to Inheritance."

Dr. Pye-Smith gives us thirty-six pages on "Zanthelasma," and Mr. C. Higgens eighteen pages on "Preventable Blindness."

After these comes an elaborate article on the classification and distribution of diseases, and one on skin diseases, illustrated with plates. Dr. Goodhart gives an article of over eighty pages on the treatment, etc., of empyema. He tabulates seventy-seven cases. The favorite treatment was subaqueous drainage, by means of a drainage tube opening in a vessel of water. Thirty-one of the cases were treated in this way, with thirteen deaths, or about forty per cent. mortality. It appears that the Chicago plan of drainage and daily antiseptic injections, which has been applied here in about ten cases without a single failure, has scarcely occurred to the surgeons of Guy's Hospital, and they still persist in a method which terminates in the death of nearly half of the patients. They report only one case treated by injections, and say nothing as to what the injected materials were. Dr. Andrews, of Chicago, commenced the antiseptic pleural injections and published his cases four or five years ago. Dr. Fox, of Riverside, Ill., and Drs. Davis and Vittum, of Barraboo, Wis., have practiced it, and later it has been adopted in most of the American cities. It is scarcely creditable, for the surgeons of the greatest city in the world, to omit the use of a method which is everywhere else so much more successful than their own plan.

The remainder of the volume contains articles on Bright's, Addison's and Hodgkin's diseases, on osteotomy of the neck of the femur; on disease of the cæcum, on punctured fracture of the skull, on myeloid and several other diseases of the bones; on diphtheria and croup; on the use of sedatives, on the nervous system in diabetes; on poisoning by phosphorus; and on the treatment of varicose veins by excision.

The volume closes with a number of short communications, and with a statistical analysis of the patients treated during

the year. The total number treated in the wards was about 5,700, and the out-patients prescribed for were about 14,000.

The work is illustrated with quite a number of lithographs, and is a valuable contribution to the professional literature.

A Course of Practical Histology: Being an Introduction to the Use of the Microscope. By *Edward Albert Schaefer*, Assistant Professor of Physiology in University College, London. With illustrations on wood. Philadelphia: *Henry C. Lea*, 1877.

The author says in his preface that "The purpose of this work is to afford to those engaged in the practical study of Histology, plain and intelligible directions for the suitable preparation of the animal tissues; with the object, either of immediate study, or of their preservation as specimens for future reference." A sensible aim, surely.

The book begins with an introduction, describing, briefly but clearly, the various forms of microscopes of use to those engaged in Histological work. He omits all discussion of the optical principles involved in the construction of the instrument, and goes at once to a description of its parts and their uses. He makes no invidious distinctions, and mentions no names of makers, but the instrument which he figures is of the continental pattern, probably the small stand of Hartnack. He also figures and describes some of the more useful instruments in the preparing and mounting of objects, as forceps, and scissors of various forms, needles set in handles, etc. The introduction ends with a few brief, general directions for work.

In Chapter I. he begins with a study of the blood, giving directions for the examination of a drop of blood as it is drawn from the finger, and describing the different structures to be seen, and how to observe them. He then passes to the consideration of the action of different re-agents upon blood, beginning with heat, and illustrates, among other and older ones, a new and very ingenious apparatus for keeping blood or any other substance, at an even high temperature under the microscope for an indefinite time. He then passes on to the action of water, acetic acid, tannic acid, alkalies and chloroform upon the blood.

In submitting the blood to the action of the latter substance, he uses the moist chamber of Stricker; this chamber is made of a ring of putty put upon the slide. In using the chamber, a drop of chloroform is placed within the ring, and a thin glass with a drop of blood adhering to its under side, is placed over the ring, so that the drop of blood and of chloroform are within the same chamber. He also describes a plan for submitting blood to the vapor of chloroform, or other substances; he attaches a bit of glass tubing to the slide with a little sealing-wax, the end of which extends within the moist chamber; to the outer end of this glass tube a rubber tube is connected, which leads from the source of the supply of the vapor.

Leaving the consideration of human blood, he passes to the examination of frog's blood, and the "feeding of the white corpuscles" by rubbing up Indian ink with salt solution and mixing it with blood. The action of boracic acid and of carbonic acid gas upon frog's blood are next described, and a very ingenious apparatus for investigating the action of electricity upon the blood. The chapter closes with some account of the chemical constitution of the corpuscles.

This chapter is one of the most complete and satisfactory of any with which we are acquainted upon the subject.

Chapter II. goes in the same thorough manner into the study of epithelium. First, he considers the scales of epithelium found in saliva, the deep layers of the epithelium of the mouth, the horny layer of the epidermis, the columnar epithelium of the intestinal canal. He next passes on to the study of ciliated epithelium, recommending for this purpose the gills of the sea water mussel, and gives a number of interesting observations as to the action of various re-agents upon the motions of the cilia, such as heat, weak alkalies, carbonic acid and chloroform; he then considers the form and structure of the cells and the manner of preserving them, as permanent objects.

These chapters may serve as samples of the book; we will merely indicate the contents of the remaining chapters.

Chapter III. is taken up with a consideration of connective tissues, chapter IV. with cartilage, chapter V. with bone, chapter VI. with muscular tissue, chapter VII. with nervous tissue, including the nervous endings.

In this connection we would like to have seen a reference to the method of preparation so long used and defended by Dr. Beale. His methods certainly deserve more consideration than they have received in certain quarters. Many of his conclusions have been corroborated by other observers—indeed nearly all of his easier observations have been so confirmed, and the results of investigations are approaching nearer and nearer to his conclusions, and we are sure that they will in the main, be all confirmed in time. Dr. Beale's peculiar method of preparation is difficult, requiring skill and patient attention to many details, as well as the use of the very highest powers of the microscope. This may, perhaps, explain in some degree, the want of success of other observers, in reaching his results, and the neglect with which his views have been often treated.

Chapter VIII. describes the method of studying blood vessels; cutting sections of tissues; the examination of the circulation of the blood in the web, and mesentery of the frog, in the mesentery of small mammals, and in the lung and tongue of the toad. He then enters upon the consideration of methods of injecting, and the apparatus to be used. Chapter IX. is concerned with the lymphatics and serous membranes; chapter X. with the skin, hair and nails; chapter XI. takes up the heart; chapter XII. the lungs; chapter XIII. the mouth and pharynx; chapter XIV. the esophagus and the stomach; chapter XV. the small and large intestines; chapter XVI. the liver; chapter XVII. the spleen and urinary organs; chapter XVIII. the generative organs; chapter XIX. the central nervous system, the brain and spinal cord; chapter XX. the eye; chapter XXI. the ear and organs of taste. In conclusion there is an appendix with directions for measuring objects under the microscope, drawing objects, counting blood corpuscles, etc.

As a whole, the book is an admirable one. The descriptions are brief, but they are clear and detailed. The author has learned that rare art of stopping when he has said his say. The book has also the still more uncommon merit of bearing everywhere the impress of the author's own thought.

There is no such thing in the book as a condensation of a chapter, or section, or paragraph, from any one else. Even when describing some of the commonest processes, he shows such a practical familiarity with the details as to give his description the flavor of originality.

There is no useless lumber about the book; antiquated chapters, obsolete cuts, and pet theories are relentlessly pruned away, to the great saving of the reader's time and patience, and the great improvement of the whole work.

The illustrations are few in number, only about forty, besides the one which faces the title page, but they always serve a useful purpose. None are introduced for the sake of looking pretty.

In conclusion, we can confidently recommend the work as the most useful manual for the practical histologist with which we are acquainted. L. C.

How to Use the Ophthalmoscope. Being elementary instructions in Ophthalmoscopy. Arranged for Students. By *Edgar A. Browne.* Philadelphia: *Henry C. Lea.* 1877.

About twenty-five years ago, the ophthalmoscope was presented to the medical profession; it has, during its short career, accomplished wonderful things—results equalled by but few, and surpassed by no other instruments in a physician's hands. And yet, instead of being a pocket companion of most physicians, the ophthalmoscope is rarely found outside of the office of an oculist!

Why is it that this valuable little instrument is so unpopular with the average practitioner? In the first place, they think everything relating to the eye does not concern the ordinary physician, and consequently, do not care to know anything about it. And then, they have the idea that there is a certain mysterious difficulty in the use of the ophthalmoscope, that ordinary mortals cannot master.

Now, we contend that the average student of medicine is capable of learning the art of ophthalmoscopy, if he begins at the beginning and proceeds slowly and systematically. As the

child has to learn the A, B, and C before it can read, so the student must acquaint himself with the elementary facts in ophthalmoscopy, before he can use the instrument for any particular diagnostic purpose. He must know the fundamental laws of optics; he must learn how to look into the eye, and what to see in the normal eye. If these elements of the physical diagnosis of the eye are presented in plain and intelligent language, even the rawest student will be enabled to comprehend them. But the fault of many teachers is their desire to teach very much in the shortest possible time; they hurry, within the same lecture, from physical diagnosis to the symptomatology of diseases; from the appearance of a healthy eye to morbid anatomy. The student thus is suddenly bewildered by a multitude of new facts. This feeling will not overcome one who has read Browne's little book of 120 small octavo pages. It is very elementary; it is the very A, B, C of ophthalmoscopy, and for this reason we would recommend it to medical students. Indeed, we wish it might make many friends, because we expect it will do much toward popularizing the use of the ophthalmoscope.

The book, however, has a few deficiencies which should not pass unnoticed.

On page 58, Figs. 24 and 25 are designed to show the effect of inversion of the ophthalmoscopic image. The explanatory note to Fig. 24 reads as follows: "Fig. 24 is a map of the left eye in the erect image, showing the position of a disk, with the largest vein curving upward, and a diseased patch in the upper and inner quadrant of the field." But this diseased patch is situated in the sketch to the *right* side of the disk which always corresponds to the *outer* half of the *left* retina, and consequently the above explanation should read: "*a diseased patch in the upper and outer quadrant.*"

Speaking of the examination of the erect image the author says (p. 59): "Ascertain, in the first place, that your own refraction is normal; if not, a suitable correcting lens must be placed in the clip behind the mirror." He should have added right there, that it is equally important to ascertain the refraction of the examined eye and to correct any refractive anomaly,

especially myopia, by a suitable glass. With such directions as given on pages 54 to 61, a student will never succeed in seeing the erect image of the fundus of a near-sighted eye.

A serious blunder, we think, is committed by leaving out the parallactic displacement, among the signs by which we are able to ascertain alterations in the surface-level in the fundus. It is of far greater diagnostic value than any of the signs Browne has mentioned.

We notice a single typographical error: "Stannings papille" instead of "Stauungspapille."

COMPENDIUM OF HISTOLOGY. Twenty-four lectures by *Heinrich Frey*, Professor. Translated from the German by permission of the author, by *George R. Cutter*, M. D., Assistant Surgeon New York Eye and Ear Infirmary; Ophthalmic and Aural Surgeon, New York Dispensary, etc., etc. Illustrated by 208 engravings on wood. New York: *G. P. Putnam's Sons.* 1876.

This book is a weariness to the flesh; a plague to the conscientious reviewer. It is a book one takes up with expectation and delight, reads with a sense of disappointment, and throws aside with a feeling of profound relief at having completed an irksome task. Its style is stilted, bombastic, sophomoric. Take for example the first sentence of the First Lecture: "A deep abyss separates the inorganic from the organic, the inanimate from the animate. The rock-crystal on the one side—vegetable and animal on the other; how infinitely different the image." We almost experience a feeling of relief when we find that no convulsion of nature follows the promulgation of this ponderous proposition; but our apprehensions are again aroused when we read that "it is reserved for future generations of men to fill up this yawning chasm by the aid of a more thorough knowledge of nature, and to comprehend the sphere of the material world as a unit."

Next is propounded the conundrum, "What is the primary beginning of the organic?" To this query the following answer is made:

"An admirable English naturalist, Huxley, succeeded, in the year 1868, in making a marvelous discovery. The bottom

of our seas, at the most considerable depths, is covered over, in large tracts, with a strange, slimy substance. When this thing, called the bathybius, is drawn up by the dredge and placed under the microscope—under that instrument which has conquered the mighty world of minuteness for natural science—a very peculiar image is presented to the astonished eye," etc., etc. This constitutes the first page. We shall inflict no further excerpts upon the "astonished eye" of the reader, but simply summarize our impressions of the book.

The style lacks simplicity, clearness, terseness—hence force; it is rich in ambiguity, elephantine vivacity and commencement-day rhetoric; complications of negatives and abrupt transitions abound; originality in the use of language is strikingly apparent. Talleyrand is credited with the remark that the art of conversation consists in concealing one's thoughts; our author would evidently not restrict the art to conversation.

Yet concealed beneath the grotesque manner is much valuable matter. The book is apparently a condensation of Frey's "Histology and Histo-Chemistry,"—which, though imperfect, is probably the best text-book on the subject in the language. The larger book is generally free from the follies of the smaller —thanks, probably, to the translator. The general plan of the "Compendium" is excellent, the admirable classification and arrangement of the larger work being substantially retained in the smaller. The first lecture is a brief discussion of the origin, structure and function of the cell; the second is devoted to classification of the tissues, based upon the variation of the component cells from their primitive type, and upon the nature of the intercellular substance. This classification the author clumsily, but truthfully, pronounces "preponderating artificial, which, with all its defectiveness, possesses, at least, the advantage of presenting the material in a more convenient form to the learner." Seven succeeding lectures are consumed in describing the individual tissues; the remainder of the work discusses the combination of those tissues in the formation of organs. It is to be regretted that but little attention is given to embryology; surely the structure of mature tissues and organs would be far more intelligible to the student, after a study of their origin and development.

The exposition in the compendium is, in general, sufficiently minute for the student, and yet so brief as to secure attention where the elaborate descriptions of Stricker and Frey would overwhelm.

For the fidelity of the work the author's name is sufficient guaranty; that he differs from other histologists on certain points is due to the fact that he has a foundation for opinions of his own.

The wood-engravings are more than ordinarily well executed. A singular omission, especially unfortunate to the student of theoretical history only, is the neglect to state the amplification represented in the cuts.

On the whole we do not regard the compendium as essential to the student's library. W. L. B.

THE ELECTRIC BATH—ITS MEDICAL USES, EFFECTS AND APPLIANCES. By *George M. Schweig, M.D.* 134 pages. New York: *G. P. Putnam's Sons.* 1877.

With the exception of a few meager remarks on the "electro-chemical bath," in one or two works on electricity, and a few fugitive articles in some of the recent journals, there has been but little recorded of the electrical bath as a remedial agent. Should we consult the patent office reports, and some of the proceedings of courts of justice, we would find that the electric bath is no new thing. This is but another illustration of the fact, that many of our best remedies, and now recognized means for the treatment of disease, have originated outside of the medical profession, and have only been adopted after their utility has been proven by the laity, and some physician has first used and given them to the profession.

This work from a scientific source, the first-born, though by no means the first conceived of the kind, we welcome, as an effective means of taking from the laity and charlatans a valuable, and frequently (in their hands) a dangerous means of treating disease.

The publishers have performed their work well, and have given us an attractive book.

The apparatus used and described by Dr. Schweig is crude,

and admits of but few of the finer modes of application of the more complete apparatus. His tub, from the description, is but little more than a square box, for he says, "It is very difficult to make a wooden tub with a slanting back, water-tight." This is entirely different from our experience in the construction of tubs. He also says, "It must not be forgotten, however, that a wooden tub requires to be well painted inside, in order to prevent its becoming water-soaked, because in that event it would become a conductor of electricity, and interfere, to some extent, with the administration of the electric current." Here we again differ. Should the unpainted tub become water-soaked, it is not enough better conductor than water to make any perceptible difference in the passage of the current from one electrode to another through the water. Even if the tub is painted, it is liable to become water-soaked. We speak from experience, for we have used both the painted and unpainted tubs, and have found no difference. The electrodes, two in number, are fastened one at the head and the other at the foot of the tub, by means of a piece of cloth stretched over the electrode and tacked to the tub. This is certainly a most uncleanly means, for after a few days immersion in water, the cloth will become slimy and decidedly nasty, besides affording a splendid receptacle for that which the patient may leave behind him. The "surface board" (p. 14) could with advantage be dispensed with, and any of the ordinary forms of electrodes for the general local application of electricity be substituted with advantage.

He recognizes the great advantage derived from medicating the bath with various chemicals, the benefits of which can hardly be appreciated save by those who have had experience in this mode of administering remedies.

We regret that he does not enter more into the detail of treating the various cases he records. What he has said of the treatment will be of service to those who have no knowledge of the bath; yet we have the feeling as we finish the book, that because he knows all about the administration of the bath, his readers must also know all that he does, and thus supply that which is not written.

On page 97 occurs, "but will carefully discriminate, and conscientiously exclude those cases in which general electrization might result injuriously. In such cases a tolerably accurate diagnosis is, as a rule, readily made, and will enable the physician to separate the suitable from the unsuitable cases." That this is the fact we do not question, but we certainly would like some details of the cases in which injury may result, rather than the bare statement that such is the case.

We are glad this book has been added to medical literature, as it is, perhaps, the first of a series which will supply the needs of the profession.

Translations.

GYNÆCOLOGY IN JAPAN.

By Dr. A. Wernich, of Yeddo.

[TRANSLATED BY DR. JAMES I. TUCKER, CHICAGO.]

(Continued.)

GYNÆCOLOGICAL DISEASES. I. OVARIES.

In examining the materials of ovarian disease, which my colleague, Dr. Schultze, has collected, and which he kindly permitted me to use, I find no account whatever of Oophoritis. This is not to be attributed altogether to the caution which is universally observed in the diagnosis of these extreme puerperal conditions, but to the fact that of all the cases not even one has awakened the suspicion that this condition existed.

Encysted and indurated tumors were, on the contrary, met with in 21 well-marked and rather advanced cases. These cases were shared by Dr. Schultze and myself. He had nine and I had twelve, since those patients who came to the hospital for the purpose of operations were immediately assigned to the surgical department. Among my twelve cases were four clearly cystic, fluctuating tumors, one of which proved upon puncture to be a multilocular cystoid. Eight of my cases were surrounded with solid matter, among which were two very hard, apparently perfectly solid tumors. I am of the

opinion that we must look upon this preponderance of the latter as accidental, especially as Dr. Schultze out of nine cases found three (including those recorded somewhat in detail below), as solid tumors (cysto-sarcoma or teratoid).

I omit here intentionally the anatomical description of the preparations derived from ovariotomy, because Dr. Schultze has reserved for himself the report of operations, and the description of tumors must necessarily form an important part of this report.

I give instead, the result of clinical observation, as follows;

The growth of tumors, of the encysted as well as the indurated character, was, on the whole, slow. Though the Japanese women are attentive to *Katameri* (literally translated; lumpy masses), in the abdomen, yet only one could give an account of a tumor whose growth was really rapid. Three or four years was the interval after the discovery of the usual tumor, as large as the fist, to the time when it had become troublesome through size and weight. After Dr. Shultze had operated on three cases of ovarian tumor, in quick succession, a number of new cases made their appearance. Yet in private practice I met with a number of ovarian tumors which could only be felt, but which had existed five to six years.

Relief by spontaneous evacuation from the outside, or through the peritoneum, is apparently not at all known. Puncture is regarded necessary by physicians and the women, and has been a means of palliation for a long time. Prior to the first ovariotomy in Japan by Dr. Schultze, with my assistance, March 25, 1875, ovarian tumor was supposed to be a fatal disease.

I have never observed any remarkable alteration in, or sudden disappearance of these tumors. Inflammation in and about the tumor was noticed in one case.

Functional disturbances of other organs were, it is true, distinctly observed, but not felt, in excessive degree. In my twelve cases ascites was proven to exist in six, by physical examination, and in three by puncture and examination of the fluid contents. Albuminuria, cachexia, and marked disturb-

ances of the stomach and alimentary canal were rare, on the contrary there was always considerable dyspnœa.

According to age the cases stand as follows :

At 11 years of age,	-	-	-	-	1 case.
From 20–30 years of age,	-	-	-	-	4 cases.
" 30–40 " " "	-	-	-	9 "
" 40–50 " " "	-	-	-	-	5 "
" 50–60 " " "	-	-	-	2 "
At 62 years of age,	-	-	-	-	1 case.

It was impossible to discover any single aetiological influence, neither heredity, early or late appearance of menstruation, earlier or later marriage, frequent confinments, nor complication with other gynæcological diseases.

In my twelve cases, there was sudden suppression of menstruation in two; the period was irregular in nine; it continued perfectly regular in one.

Pains in the abdomen, generally referred to one side, was the first symptom in ten cases. Suppression of the urine or dysuria was observed only in two cases. Severe constipation occurred six times. Only once was the tumor unexpectedly discovered.

Neither Dr. Schultze nor I can contribute anything to lessen the difficulties in diagnosis, as the cases, as a whole, had been for a long time developed, and their true character easily distinguishable. Once, in a very respectable old Japanese woman, who, at my first visit, objected to an inward examination, I was uncertain whether I had to deal with ascites alone, or cysts complicated with ascites. The trocar enabled me to decide that the latter opinion was correct.

The following case, which Dr. Schultze kindly gave me for this communication, deserves especial mention.

Iwata. *Child* 11 *years old.*

Previously well. In January, 1875, she noticed, herself, in the left side of the abdomen a swelling about the size of a hen's egg, movable and destitute of sensation. Despite the remedies used, the swelling increased more and more. Since May, 1875, the patient has been obliged to go to stool several times a day. The discharge was not diarrhœtic, but somewhat softer than

usual. After each passage, she experienced some pain in the region of the stomach; the emptying of the bladder, also, must be attended to oftener than formerly. For 20 days, feeling of weight and numbness in right foot, with some ataxy.

Status praesens from November 24, 1875. A maiden of healthy appearance, developed in proportion to her age. Subcutaneous connective tissue moderately adipose, mucous membrane somewhat pale. The belly is remarkable, being swelled up in a very irregular manner. There are especially two bunches, one in the regio mesogastrica dextra, the other in the regio hypogastrica media. The circumference of the abdomen, on a level with the umbilicus, is 58 Cm., on a level with the spinæ ant. sup., 62.5 Cm. Upon palpation, we feel a tumor in the abdominal cavity, filling the lower part of the cavity completely, and extending to the right as far as the lower lobe of the liver. From the lower part of the abdomen there extended a cord-like prolongation into the pelvis. The swelling had a knotty hardness, soft and elastic in the prolongation mentioned. The percussion impulse is absolutely dull over the tumor. The tumor is movable, and seems to be attached in the pelvis only. No tumor is discoverable upon rectal examination.

Exploration per vaginam was unavailable, on account of the natural obstacles presented by the genital organs of a child.

All the other organs were sound; the general condition, with the exception of difficulty of defecation and urination, intact. The patient was examined in the poli-clinic; she came several weeks, without change.

Diagnosis: Tumor ovarii dextri-teratoides (?)

II. UTERUS.

A. INFLAMMATORY AFFECTIONS.

I have never realized before so fully and unequivocally the quick and strong participation of the genital system in the affections of the whole female organism. While the habits which the Japanese women observe at the time of their menstruation, their slowness and cautiousness of bodily movements, the remarkably quiet temperament of the women and girls, which has already been referred to as peculiar to them,

protect them almost absolutely from many very common causes and frequent occurrences of various uterine diseases, nevertheless scanty and interrupted mensturation occurs almost instantly as the consequence of severe internal disorder. I have endeavored to avoid confounding here cause and effect mistaking the deleterious consequences of an endometritis or chronic infarction with the vaguely distinguishable forms of disease which proceed from other internal organs. When I consult my notes and observe how seldom *trauma*, colds, and puerperal disorders figure among the forerunners of uterine affections, and how often, on the other hand, dysentery, a typhus, a yearly-recurring bronchial catarrh, and one or several attacks of hæmoptysis were clearly related to the existing trouble, thereby I am involuntarily impressed with the thought, by no means new but not entertained by all gynæcologists, that we should not only form a correct judgement concerning the local genital condition, but examine every gynæcological case in all its mainfold relations. It is to be hoped that the remark of a colleague, now dead, may not be general, a remark which he made with a sort of grim pleasure, to the effect that "he did not recognize women as old patients till he had them on the examination chair, and saw them *from below*."

Those conditions which bore most frequently ætiological relations to *chronic hypertrophy of the cervix*, (pardon me for classifying this under "inflammatory affections") were the gradually developing chronic diseases of the lungs, especially infiltration with progressive tuberculization occurring after hæmoptoë, and cardiac dilitation, according to Beriberi. Next should be mentioned as by no means uncommon typhus, chronic gastric catarrh during the hot months and simple bronchial catarrh. It is not necessary to say that subinvolution in puerperium did not fail to appear, and also anæmia and hydræmia congenital, or acquired in childhood.

The form was generally that of a very widely expanded, swollen (ectropioned) vulva, some elongation of the whole organ, and prominent, dilated and over-filled blood-vessels. Erosions were observed in more than half the cases, deep

lesions of the mucous membrane never. Good results followed the therapeutic means employed, which consisted of occasional heroic section of the dilated vessels, glycerine tampons, reclined position in bed, and mild astringent injections of gradually diminished temperature. Erosions healed much more promptly under the use of solutions of carbolate of zinc, or of carbolized oil, than of argentum nitricum, or under the use of some of the stronger astringents.

One constitutional peculiarity of the Japanese women worked admirably against the danger from all acute inflammatory conditions of the uterus, namely, a very sluggish reaction of the whole mucous membrane. Puerperal endometritiden of considerable intensity, and apparently of a character not devoid of danger, got well quickly and surely under moderate mercurialization, and regular syringing with carbolic and salicylic acids.

B. MORBID GROWTHS.

If only one carcinoma uteri came to hand among the only 13 gynæcological patients, who, as out-patients, were immediately transferred to the surgical department, it should not be looked upon as anything particularly unusual. If, however, among the other 74 cases consigned to me and called "gynæcological," not a single carcinoma of the cervix appeared, the remark will appear justifiable that in Japan, at least in these parts of the country (from which the reputation of European physicians is continually drawing patients to the capital), carcinoma of the uterus is a very rare disease. In confirmation of this, my assistants were quite astonished, upon hearing me describe uterine cancer as a frequent cause of death, and several of them otherwise well-educated men, knew nothing of the disease in question even from hearsay. In respect to the ætiological significance of cancer, to which in many new and good works on the subject of gynæcology more and more space is being given, I cannot avoid referring once more to my general characteristics of the Japanese women. If, indeed, it is true that the influence of continual emotional excitement is to be regarded as a cause, we can almost understand how

the women of a nation who live on so quietly, cheerfully, and without powerful emotion, as is the case with the Japanese women, how such women, I say, may be afflicted with cancer with remarkable infrequency. The inquiring pathologist who assigns reverses of fortune, etc., as the cause of so and so much per cent. of uterine cancer, only needs to take a short step into the domain of morals, to meet the most terrible admonition, and how near to my observation (surely not altogether accidental) that carcinoma of the uterus is very rare, is the conclusion that: *uterine cancer in the overwhelming majority of cases, is a consequence of the social and conjugal misery of our great cities!*

The above-mentioned single case, which occurred in a woman 46 years old, had already *verjauchung* (foul discharge), and perforation of the vagina, and the patient was much emaciated. She died after a two-weeks' sojourn in the surgical department.

Sarcoma of the fundus uteri I have witnessed in one patient, whom I was called to see in consultation with a Japanese physician, a few days before her death. There were large pieces which were microscopically distinguished as sarcoma, and in the fundus soft, friable irregular masses of the tumor, a part of which could easily be reached and removed by the finger. Yet the strength of the patient had so far failed, that for the removal of the fundus it would have required a certain improvement in the general condition, which was now impossible.

As a very common affection here I must speak of fibroma and fibro-myoma of the uterus. There were nine cases, of which four occurred in private practice, and five in the clinic. Of the latter, two left when the troublesome pains were relieved and the profuse bleeding had stopped, which was promptly after the use of ergotin injections. They left because these were painful to them. One left in eight and the other in eleven days. The other three cases deserve a short special mention.

Case I. (Dr. Schultze). Ito, 28 years old. Since September, 1875, pains in abdomen and irregular hemorrhages. In January, 1876, the bleeding persisted, though in moderate degree, twenty-five days. She had never been pregnant.

February 28th, 1876, the portio vaginalis completely anteverted. In the posterior concavity of the vagina an irregular, knotty, hard tumor. This can be distinctly felt from the rectum. It almost completely fills the rectum in the upper part, and extends so far upward, that its superior surface cannot be reached. The tumor is plainly attached to the posterior wall of the uterus. It cannot be felt distinctly in the abdomen. Uterine sound can be introduced but three cm., speculum examination reveals nothing of importance.

Case II. (My own observation.) Nurse, 48 years old. She complains of sense of weight and afterward bearing down sensations in the abdomen which have lasted two years. In September, 1875, felt, while at stool, a hard, labor-like pressure, and discovered, upon feeling in the vagina, a smooth, firm and soft bleeding body. It was two months before, on account of repeated hemorrhages which reduced her strength to a great degree, she concluded to take to her bed in the medical ward, and the following was discovered upon examination.

Just behind the lesser lips there was found a tumor of the size of a man's fist, of somewhat unequal, firm, and elastic consistency, closely encompassed every where by the vaginal walls. The mucous membrane of the vagina was smooth and very vascular. It was only possible to feel a fleshy protuberance (the anterior lips of the os uteri) after laboriously pressing up two fingers. In front the tumor obstructed the admission of the fingers, yet the character of the swelling is made out with sufficient clearness by sound and rectal examination, as one proceeding out of the uterus. The patient suffered considerably from hemorrhage and pain, and was very much reduced. We would under these circumstances have decided to remove the fibromyomal growth, had we been able to reach a pedicle. Twice daily injections of ergotin, to which this patient willingly submitted. The pains ceased first, then long cessation of the bleeding, which up to that time was almost continual. Gradually, as a consequence of the perpetual contraction of the uterus induced by the ergotin, a distinct pedicle began to form, up as far as (now after two and a half

months) we are able to feel even to the peripherally-perfect circumference through the mouth of the womb. Yet the patient at this time felt so well as the result of internal and external use of liq. ferri sesquichloridi (she had not lost a drop of blood for fifty days), that an operation did not seem to be indicated. The tumor has become much firmer and somewhat reduced in size.*

Case III. (My own observation.) Madzusan, 34 years of age.

On the 24th of August, 1875, there was presented to me under the false diagnosis of "procidentia uteri" a patient with fibroid almost as big as as a child's head. The tumor, which for 13 days had protruded from the uterus and the vulva, was almost ulcerated off on its entire upper surface, and was covered with grayish brown, masses. It was attached to the somewhat inverted anterior uterine wall, by a thick pedicle of the thickness of two thumbs, and emitted a pestiferous stench. The patient could scarcely be said to be alive, she had lost so much blood. Over the symphysis and per rectum we felt a hard mass, apparently attached to the uterine wall, but it afterwards proved to be a flat intramural fibroid of the posterior wall. I concluded, under necessary precautions, to take off the projecting portion of the tumor by means of the galvano-cautery. The examination of the tumor revealed a simple fibrous structure; the ulceration of the upper surface was entirely conditioned by the frequent change of position of the patient, lying now upon her back and again sitting up, on account of the discomfort occasioned by the heavy hanging tumor, and conditioned also by the injurious effects of excessive heat.

The patient was perfectly well in three days. The cut end of the pedicle, which withdrew more and more into the uterine cavity, was entirely healed in eight days. The efforts to still further reduce the size of the part of the fibrous growth which was situated in the walls of the uterus, was only partially successful.

* The operation was, however, performed in the middle of June by means of the Ecraseur.

C. Alterations in form and position.

Twenty-three cases came under my observation, wherein there were changes in the position of the uterus from different causes; three of them were treated by pessaries, and eleven with other uterine supports. In some resorbents upon tampons, or in the form of suppositories were used; in others the patients were caused to lie constantly on the belly, and treatment of circumscribed parts of the vagina resorted to.

Hæmatometra has come only once to my notice. It exhibited a simple imperforatio hymenis and retention of the menstrual fluid, of twenty months standing. The case was cured by a simple crucial incision, and avoidance of pressure during the discharge.

Absence of the uterus, with a very short vagina (2½ cm.) was observed in one person twenty-one years old, who was otherwise very well developed. Upon synchronous palpation per rectum and vagina, we could feel above the cul-de-sac of the vagina a movable, smooth body, of the size of an almond.

Atrophy of the uterus seemed very frequently to appear very soon after the menopause. At least I have found it in all old women from 50 to 60 years of age, whom I examined in part for the sake of being thorough, and of the students. We found a remarkably small, shrivelled and bloodless portio vaginalis hanging down in the vagina like a fold of skin, and upon examination with the sound, a uterine cavity of only 3 to 4 cm.

III. AFFECTIONS IN THE NEIGHBORHOOD OF THE UTERUS.

What I have already mentioned while speaking of puerperal endometritiden and metritiden concerning a favorable, often almost reactionless course, may be reiterated in regard to peri and parametritic processes, and is true of the majority of cases. At least the older ones, and the practitioners among my assistant physicians, have had no experience with the severer results of these inflammations. The presumption that in parametritic inflammations of a suppurative character, and leading to rupture, the mild course may be transformed into one enormously sluggish, was corroborated by the case of

a 27-year-old primipara, who, exactly 10 months after the inception of a fluctuating tumor, was relieved of the pus it contained. A few days after the confinement she felt pain in the left side, which was succeeded by a feeling of heavy pressure and the discovery of a swelling which gradually became softer and softer. The diagnosis was difficult, on account of the extraordinarily slow development of the fluctuation, the absence of reaction, and because the discharge was so long delayed. At last the exudation worked itself to the left side, and showed here, immediately over Poupart's ligament, with fever-symptoms, but without particular pain, a very soft fluctuating place of the size of a walnut, from which (after incision) there escaped not only in the left side the newly-accumulated, but on the right side the long pent-up matter. After the evacuation the patient recovered in a few days.

Hæmatocele seems to be very rare. To the native physicians it was wholly unknown. I myself saw it once in residuum after the resorption was quite far advanced. There is perhaps another way to explain it, viz., by the fact that the Japanese women are seldom on the street during the period of menstruation.

IV. DISEASES WHICH INVOLVE THE VAGINA AND THE EXTERNAL GENITAL ORGANS.

Excepting elephantiasis, these have been seen neither by Dr. Schultze nor myself. Women (and also men) with a particularly high grade of elephantiasis of the lower extremities and of the sexual organs, exhibited themselves sometimes in the booths in the neighborhood of the Temple as objects of charity. A case of condylomata lata and acuminata, which came under treatment in the surgical clinic was interesting to us on account of the monstrous collection of the characteristic eminences.

Connected with the notice of the remarkably prominent meatus of the urethra, I may mention three cases as pathological, in which the entire urethral protuberance had a sausage-like feel, with a very significant degree of prolapse of the vaginal parietes without anything more than a slight anteversion of

the uterus. The patients stated that it was gradually superincumbent upon an incontinent nocturnal urination. All three were unmarried and sterile. The suffering was relieved by leeches, large glycerin tampons, and cold tannin injections repeated every half hour. In close relation to the urethral abnormalities stands the frequent development of urethral carunculæ, a condition of things which has thrice come under my observation. The severe burning pains and occasional hemorrhages were always relieved by a simple operation. In one case it was necessary to treat the carunclæ of the urethra not only by dilatation, but subsequently by cauterization.

Vagino-blennorrhœa were very stubborn and unyielding when they were sequels of inflammation. Quantities of mucopurulent matter welled up in the morning in spite of efforts to keep clean, and in spite of the application of pulverized and dissolved astringent to the flabby, unevenly-swollen, and ecchymosed mucous membrane of the vagina. For this condition, diluted liq. ferri sesquichlor. alternated with strong solutions of carbolic acid, were used.

Selections.

TREATMENT OF DISEASES OF THE HAIR.

(From The Doctor, August, 1877.)

Professor Erasmus Wilson has devoted this year's course on Dermatology to the diseases of the hair system. Among these, baldness and greyness occupies an important position, and like others, were discussed in an exhaustive manner. The lectures that are appearing *in extenso* in the *Medical Examiner* will be perused by all dermatologists, and therefore we may safely confine ourselves to the therapeutics of baldness, alopecia, or calvities, and baldness. Poliothrix, or canities, as a prophylactic brushing is of the first importance, as it promotes circulation and renovation, as well as removes scurf. Though advocating cleanliness to the utmost, to the question, "Am I to wash my head?" Mr. Wilson replies emphatically "No."

Water is a less effective stimulant than brushing, even when sea-water is used. Cutting is less effective in promoting growth than is commonly believed, but is advantageously applied to the short, slender hairs commonly called "young hairs," and which are so often associated with baldness.

The number of applications warranted to cure baldness is legion, and their constant failure familiar to all. From the fat of the bear to the spirituous essence, most of them are stimulants, as is the petroleum lately vaunted. All occasionally seem to succeed—that is, the public observe that the hair grows after the use, and the public never experiences the fallacy of *post hoc ergo propter hoc* in matters therapeutic. Our readers will be glad to hear the experience of Professor Wilson on the use of some of these remedies, which we proceed to give, beginning with cantharides, acetic acid, and ammonia. He found croton oil, although excellent as to its stimulating effects, peculiarly unmanageable as an application for the head. In one instance, in a young lady, it produced so much redness and swelling, symptoms which extended to the eyelids and face, that he was threatened with a legal prosecution for prescribing it. In a few days the swelling subsided, and as the hair grew again satisfactorily, he was let off without action or thanks. The croton oil having played a similar prank on a second occasion, he has discarded it.

The milder and more manageable stimulation of cantharides has gained it a popular character, both as a stimulant and as an epispastic; but it also is not without its reverse. It is too apt to stretch its stimulative power to the extent of irritation, to give rise to inflammatory congestion and vesication, and sometimes to suppuration and ulceration. Every now and then it may come across a peculiarly sensitive skin, while at other times it may have been employed too energetically, both as to quantity and time. Mr. Wilson has seen several instances in which cantharadine has been absorbed into the system, and has given rise to ischuria. As a rule, therefore, he rarely uses cantharides, and then always in a guarded manner. Certainly it is not a remedy to be trusted to the acknowled indiscretion of the public as a popular remedy.

Acetic acid, or rather strong pyroligneous acid, he has discontinued for many years. But judging from the reports of those who have employed it, it is still a favorite, although its favor is somewhat alloyed by the convicting evidence of a strong and disagreeable odor.

Ammonia is Mr. Wilson's favorite; it may be limited easily to the bounds of stimulation; it is unlikely to create inflammation and its consequences; it is neither absorbable into the system, nor could it do harm if such were the case, and its odor, refreshing at the moment of its use, speedily evaporates. A formula for an ammonia lotion is to be found in Willan and Bateman's book; ammonia is the active principle of a lotion for the hair of considerable reputation, called Locock's lotion; and it is also the essential ingredient of a lotion which is sold through the length and breadth of the kingdom under his name, and probably taken from some of his works.

Now, in a case of ordinary madesia or defluvium capillorum, the popular falling out of the hair, he still prescribes a lotion composed of strong liquor ammoniæ, almond oil, and chloroform, of each one part, diluted with five parts of spirits of wine, or spirits of rosemary, and made pleasant as to fragrancy by the addition of a drachm of the essential oil of lemons. The instructions for the use of this lotion are, that it should be dabbed upon the skin of the head after thorough friction with the hair-brush. No doubt there are cases in which this lotion must be used with caution. It may be diluted if necessary; it may be applied sparingly or abundantly; and it may be used daily or otherwise.

There are cases in which a less stimulating and even a refrigerating lotion may be required, and where an objection may be raised to the quantity of oil contained in the former lotion, in which cases a lotion of borax and glycerine, two drachms of each to eight ounces of distilled water, is cooling and refreshing; this lotion allays dryness of the skin, removes scurf, and subdues irritability.

In cases of complete baldness, the phalachrosis of the Greeks, and also in alopecia areata, a stronger stimulant application will be required. In such a case he recommends fric-

tions with a liniment composed of equal parts of the liniments of camphor, ammonia, chloroform, and aconite, to be well rubbed into the bare places daily, or even twice a day, so as to produce a moderate amount of stimulation. In cases of ophiasis, due to neuralgia of the cutaneous nerves of the scalp, this liniment is very valuable. In other cases the liniment of iodine may be painted on the bare patches daily, or they may be stimulated by friction with the ointment of cantharides, or any other powerful stimulant. Painting the discs of area with the epispastic fluid of the Pharmacopœia may also occasionally be resorted to, or the epispastic fluid may be diluted with spirits of camphor. The intention of all these local remedies is to stimulate without setting up irritation; to increase the energy of circulation and innervation of the part, and in some instances to abstract the excess of fluids from the tissues of the skin by inducing exudation. But these results must be accomplished, as far as possible, without pain and without severity.

The constitutional treatment of alopecia should consist in the adjustment and regulation of the functions of digestion and assimilation, and where no other special conditions are to be fulfilled the adoption of a tonic regimen and the administration of tonic remedies. Of these last arsenic bears the palm, and may be advantageously prescribed in doses of two to four minims three times a day, directly after food, and in any convenient vehicle.

Alopecia syphilitica will yield very readily to the treatment applicable to the parent disease, namely, iodide of potassium, with the local inunction of the nitric oxide of mercury ointment diluted in the proportion of one part to three or four of benzoated lard or vaseline, or the use of a lotion of the perchloride of mercury.

With regard to greyness, canities, or poliothrix, it is to be observed that as it depends like baldness on defective powers of the skin, the indications for treatment are exactly the same —to strengthen the part and at the same time strengthen the patient. To fulfill these indications we may resort to the same prescriptions. When cure is not anticipated, and in other

cases, too, we may be asked to assist in concealing what is looked upon as a deformity.

Among temporary staining to hair he mentioned a weak solution of permanganate of potash, a lotion holding in suspension sulphur and acetate of lead, or the so-called *eau des Fées*, consisting of the hyposulphites of lead and soda; among dyes sulphides of various metals, especially silver, the pyrogallate of iron and ferro-cyanide of copper. The hair, as is well known, contains sulphur, and a solution of lead brought into contact with sulphur produces a sulphide of lead which is black in color. Sulphur and acetate of lead in suspension and solution in water supply both the elements necessary for artificial coloration of the hair, and constitute the popular lotions sold so largely.

Actual dying of the hair is a more elaborate process; the hair must be washed with soap in the first place, to get rid of grease, which would otherwise interfere with the absorption of the fluid by the hairy tissue; secondly, the hair being dried, the metallic solution is to be employed and left to soak into the hair; and thirdly, the mordant fluid is to be brushed upon the part with a view to bring it in contact with every individual hair. If this operation sufficed for a considerable period, all would be well; but as we know that the hair grows quickly, the newly-grown part exhibits its original whiteness, and other dyeing soon becomes necessary. The tone of color produced by the first application may have been perfect, leaving nothing to be desired, but the white roots of the hair cannot be reached without a fresh coloring being diffused over the whole, and then the evils become apparent; a succession of coats of color render the hair more intensely black than nature herself could have accomplished, and the harmony of the featurs of the individual is disturbed: the mellowing of the lineaments of the countenance produced by white hair is reversed by the depth of the blackness, and the features are rendered harsh and severe. The theory that an appearance of youth is maintained by the color of the hair is not consistent with fact, and there is always the danger that the hair

may appear youthful, while the features themselves are expressive of old age.

As to danger to the health and constitution from dyeing the hair, Professor Wilson thinks that we cannot reasonably allege the possibility of any serious evils, for lead, to which are imputed the most dangerous of the qualities of hair dyes, enters into the composition of several of our cooling and astrigent and sedative lotions, and even injections, and although undoubtedly some cases are on record of damage resulting from its internal and excessive use, Goulard's lotion is commonly received among us as one of the most harmless of our remedies. Perhaps a distinction may be drawn between its therapeutical and its cosmetical use, but it is difficult to distinuguish the difference. It is fair, however, to state that one of our journals reports that "there died in Iowa Dr. Witherwax, from the effects of a hair-dye containing lead. He had employed the dye to his head and whiskers for four years, and during that period experienced many reminders in the shape of lead colic. Two medical men detected lead in his liver and kidneys on analysis." No further search would appear to have been prosecuted elsewhere, namely, in the direction of his drinking water. Mr. Wilson remembers two instances in which complaint was made against a lead lotion used for the purpose of coloring the hair, although several have been mentioned to him from time to time; and both cases may possibly be considered as examples of idiosyncrasy.

Medical News and Items.

Dr. Lewis A. Sayre, of New York, is entertaining the medical public of Great Britain with his description of the plaster of Paris treatment of spinal curvature.

The Chicago Society of Physicians and Surgeons has formally accepted the invitation of the Librarian of the Medical Press Association, and will hereafter meet in the rooms of the latter organization, at No. 188 S. Clark st.

Licentiates of the State Board of Health.—We propose to publish, for the benefit of our readers, the names and dates of graduation, of the physicians in the State and City, licensed to practice medicine by the State Board of Health.

Prof. Alpheus Benning Crosby, M. D., died August 10th of apoplexy, at his country-seat, Hanover, N. H. He held the Professorship of Anatomy at Bellevue Hospital Medical College and of Surgery at Dartmouth. He had also lectured on surgery at Michigan University and Long Island Medical College. He was unusually gifted as a lecturer, and enjoyed a popularity not more because of his rare ability, than of his genial social qualities. All who knew him will be pained to learn of his untimely death.

Indiana Illinois and Kentucky Inter-State Medical Society.—This Society will hold its third session in the city of Evansville, Ind., commencing 11 A. M., Third Tuesday in October, 1877, and continue three days.

President, W. H. Byford, A. M. M. D., Chicago, Ill.

1st Vice President, C. L. Dismukes, M. D., Mayfield, Ky.

2d Vice President, G. G. Barton, M. D., Washington, Ind.

3d Vice President, F. W. Deming, M. D., Pana, Ill.

Recording Secretary, G. W. Barton, M. D., Mitchell, Ind.

Corresponding Sec'y., F. W. Beard, M. D., Vincennes, Ind.

Treasurer, A. Patton, M. D., Vincennes, Ind.

Section of Surgery and Anatomy, J. W. Thompson, M. D., Paducah, Ky., Chairman; J. H. Letcher, M.D., Henderson, Ky., Sec'y.; Section of Obsteterics and Gynecology; J. A. Ireland, M. D., Louisville, Ky., chairman; S. H. Carlton, M. D., Seymour, Ind., Secretary; Section of State Medicine and Hygiene, J. W. Compton, M. D., Chairman, Evansville, Ind.; Section on Practical Medicine; J. H. Hibberd, M. D., Richmond, Ind., chairman.

J. W. Compton, M. D.,
Chairman of Committee of Arrangements.

THE FOLLOWING PAPERS are announced as the programme of the American Dermatological Association, for its First Annual Meeting, in Niagara, Sept. 4, 5 and 6, 1877 :

1. On Molluscum contagiosum, by Dr. George Henry Fox, of New York. 2. Annual Address, by the President, Dr. James C. White, of Boston. 3. The Etiology of Cutaneous Diseases, by Dr. Lunsford P. Yandell, of Louisville, Ky. 4. On the Eczema marginatum of Hebra (tinea trichophytina cruris), as observed in America, by Dr. L. Duncan Bulkley, of New York. 5. The Pathology of Seborrhœa, by Dr. Arthur Van Harlingen, of Philadelphia. 6. Faulty innervation as a factor in Skin Disease, by Dr. Edward Wigglesworth, of Boston. 7. A case of true Prurigo (of Herba), by Dr. Robert Campbell, of New York. 8. On the Immunity of certain Mothers of children affected with Hereditary Syphilis, by Dr. James Nevins Hyde, of Chicago. 9. The Lymphatic Theory of Syphilitic infection, with a new view of the relation between the chancre and chancroid; and suggestions for the radical cure of Syphilis, by Dr. Wm. A. Hardaway, of St. Louis, Mo. 10. On the Relation of Impetigo Herpetiformis to Pemphigus, by Dr. C. Heitzmann, of New York. 11. On the Xeroderma of Hebra, by Dr. R. W. Taylor, of New York. 12. Case of an unusual form of Fragilitas Crinium, by Dr. Louis A. Duhring, of Philadelphia. 13. Two Cases of very late Hereditary Syphilis, by Dr. L. Duncan Bulkley, of New York. 14. The Pathological Histology of Psoriasis, by Dr. A. R. Robinson, of New York. 15. Auto-inoculation of Vegetable Parasites, and their non-identity, by Dr. Edward Wigglesworth, of Boston. 16. Affections of the testicle in Hereditary Syphilis, by Dr. R. W. Taylor, of New York. 17. Acute Conditions of disease excited by Iodide of Potassium, by Dr. Almon Brooks, of Chicago.

The Eighth Annual Meeting of The American Association for the Cure of Inebriety, will be held in the Washingtonian Home, Chicago, Ill., Sept. 12, 1877.

The following papers are promised :

"Manifestations of premature mental decay and nervous

exhaustion, induced by inebriety and its treatment." By Dr. E. C. Mann, New York city.

"Morbid Appetites." By Dr. George Burr, Binghamton, N. Y.

"On the principles which should govern the management of inebriates, and the institutions needed to aid in their restoration." By Dr. N. S. Davis, Chicago, Ill.

"Nature and treatment of inebriety." By Dr. George M. Beard, New York City.

"Insanity and inebriety contrasted." By Dr. Joseph Parrish, Burlington, N. J.

"The obligations of the State respecting inebriety." By Dr. T. H. Evarts, Rushford, Minn.

"The curability of inebriety." By Dr. Albert Day, Boston, Mass.

"Persistent alcoholism." By Dr. C. W. Earle, Chicago, Ill.

"Inebriety and its symptomatology." By Dr. T. D. Crothers, Hartford, Conn.

"The work of managing inebriates." By Professor D. Wilkins, Chicago, Ill.

"The responsibility of the medical profession in the production of opium inebriety." By Dr. J. B. Mattison, Brooklyn, N. Y.

"Hereditary inebriety." By Dr. B. N. Comings, New Britain, Conn.

"The gradual reduction of opium in the treatment of opium inebriety." By Dr. C. T. Widney, St. Louis, Mo.

"Appetency for alcohol." By Dr. D. H. Kitchen, Binghamton, N. Y.

Other papers are promised, but the titles are not yet received.

The President's address will be on the disease of inebriety; one evening will be devoted to a public reception, in which addresses from prominent men are expected.

This promises to be one of the most important meetings ever held by the Association.

AMERICAN PUBLIC HEALTH ASSOCIATION, 1877.

Fifth Annual Meeting, Chicago, Sept. 25—27.

To The Editor of The Chicago Medical Journal and Examiner :—

The American Public Health Association will convene in Chicago, Ill., September 25th, for its Fifth Annual Meeting. It will, as usual, continue in session three days. The leading topics for discussion will be those which are becoming most practically important in the growing cities and towns of the great West, and the more dense populations of cities in the older States. The President of this Association, in his capacity as President of the State Board of Health of Illinois, fitly represents the interests of the State Sanitary Service as now provided in eight of the States west of the Alleghany Mountains. To meet the active members of those State Boards, and to take conference with them, and all others who join with this Association, in the studies and efforts for promoting the public health, and enhancing the value and certainties of human life, will be a privilege greatly appreciated by all who attend this meeting.

The city of Chicago presents, at one view, a most comprehensive field illustrating the problems of sanitary engineering, and the public health service in great cities; and its sanitary engineers are successfully working out the most important of these problems, while the medical profession and health officers are active in the studies and duties of preventive medicine. The city of the prairies is becoming the city of parks, and, in common with the thousands of treeless towns in the West, the people are surrounding themselves with trees as Nature's friends of health. The subject of Trees and Forests is among those to be reported upon and discussed. Sanitary Drainage and the Remedies for Natural Disadvantages of the Sites and Sanitary Topography of Cities and Villages will be one of the topics discussed at the opening of the session ; and important papers will be presented and discussed, relating to Preventive Measures against Scarlatina, Diphtheria, Trichina, and other destructive maladies; while other more general topics will be brought to the attention of the Meeting, it is expected, about in the order shown in the annexed list of titles. The names of the contributors to the proceedings will be announced at the proper time by the usual circular, and it is especially desired that the papers on the Geography of *Phthisis*, by Prof. Hosmer A. Johnson; on Sanitary and Medical Care of the Poor, by Prof. Edmund Andrews; that on the "Stamping Out" Process in Zymotic Pests, by Prof. H. M. Lyman, and that on Forests and Trees, by Dr. Andrews, may be followed by very thorough elucidation, and practical discussion. On behalf of the Executive Committee.

Elisha Harris, *Secretary.*

The Executive Committee has reccommended that, for this meeting, the leading discourses, papers and discussions shall be arranged under the following Division of Subjects :

I. Sanitary Topography and the Systematic Drainage

and Sewerage of Cities and Villages.—Other Problems of Public Health.

II. Sanitary Control and Extermination of the Contagia of Typhoid (Enteric) Fever, Scarlatina, Small-Pox, etc.—Other Problems of Domestic Health.

III. Expert Testimony and the Pursuit of Exact Scientific Researches in Public Health Service.

Under these three general divisions, contributions are already promised upon the following topics, and, upon several of them, there will be discussions and written statements from original observation and experience :—

Sanitary Topography of Chicago, and the Artificial Remedies of Natural Disadvantages.

Proposed Sanitary Survey of the United States.

Problems old and new in the Sanitary Drainage and Sewerage of Chicago and other Western Cities.

Sanitary Geography of Phthisis Pulmonalis and other Pulmonary Diseases.

Sanitary value of Forests.

Garden City.

Problems of Sanitary Inspection. Safe-keeping and Transportation of Food Supplies—Animal and Vegetable.

Sanitary Lessons of the Great Fire in Chicago.

"Stamping Out" Scarlatina and the Extinguishment of Zymotic Diseases.

Sanitary Observations and Preventive Measures in regard to Diphtheria.

Teachings of 22 years' Records of Mortality from Croup, Diphtheria and Scarlatina in a City.

Miasmata of Dwellings and Dwelling-grounds.

Family Health and the Relations of Heredity, Habit and Hygiene to it.

Practicable Method for securing Complete and Authentic Records of the Causes of Death throughout the United States.

Sources and Propagation of Trichina, considered with reference to Sanitary Measures.

Hygienic Care of Sailors and other Water-men, upon the Coastwise and Inland Waters.

Sanitary Safety in Railway Traveling.

Expert Testimony.

Hygiene in the Prevention of Insanity.

Sanitary and Economical Importance of the Best Surgical and Medical Treatment of the Needy Poor.

Tests and Supervision of Milk-Supplies of Large Cities.

Health in Education, as viewed in each Grade of the Schools.

Points of Enumeration and Inquiry which the Interests of the Public Health require in the TENTH NATIONAL CENSUS.

Methods of Promulgating Sanitary Knowledge and Authorized Information in regard to Vital Statistics and Prevalent Diseases.

Judicial and other Aids of Law in Public Health Service.

Discourse on the Present State of Exact Knowledge of the Causation and Prevention of Destructive Diseases which most harm Mankind.

Officers for the Year 1876–7.

President, John Rauch, M. D., Chicago, Ill; First Vice-President, Lewis H. Steiner, M. D., Frederick, Md; Second Vice President, E. M. Hunt, M. D., Metuchen, N. J; Secretary, Elisha Harris, M. D., New York, N. Y; Treasurer, J. Foster Jenkins, M. D., Yonker, N. Y.

elected members of executive committee.

John S. Billings, M. D., U. S. A; John M. Woodworth, M. D., D. C; J. L. Gibon, U. S. N; Hon. Jackson S. Schultz, N. Y; Dr. C. H. Olson, Mass; Dr. H. A. Johnson, Ill.

Summary of Progress in the Medical Sciences.

Practical Medicine.

The Curability of Insanity.—Earle—(*American Jour. of Insanity*, April, '77.) That great injustice is done by superintendents of the institutions for the insane, to the public, by almost universally reporting recoveries of cases rather than of persons, is supported by statistics from twenty institutions for the treatment of the insane; showing a much larger percentage of recoveries than really occurs. The author says that, no patient ought to be reported as recovered twice or more within the same year, and that cases and not persons are constantly being reported, which make the percentage of cases much larger than actually exists. Such unreliable statistical knowledge is chiefly due to a spirit of rivalry among superintendents. There occurred in the Friend's Asylum, eighty-seven admis-

sions, which contributed two hundred and seventy-four recoveries to the statistics of that institution. One patient recovered fifteen times; another, thirteen; a third, nine; a fourth, eight, and a fifth seven times; making fifty-two recoveries; three of these five patients afterwards died in the hospital. Of the State Hospital at Worcester, from its organization, two thousand nine hundred and forty-nine patients were admitted; six hundred and ninety-four were readmissions. Seven persons were admitted an aggregate of one hundred and six times; one was admitted twenty-three times, one eighteen, one sixteen, one fourteen, one thirteen, and two eleven times each. One of the seven persons was discharged cured twenty-two times, one sixteen, one thirteen, two eleven times, one ten and one nine times. The seven persons furnished ninety-two recoveries, and yet two of them died in the hospital, and a third is now an inmate of it, considered hopelessly insane. Some of the chief factors which are instrumental in causing such difference in percentages of recoveries of insane people, says the author, are the special characteristics of the persons reporting them, his temperament and psychological individuality, experts before legal tribunals, often err in judgment upon insane cases. In contrast with the above reports, the State Hospital in Maine furnished statistics in the five years from 1846 to 1850, inclusive, of five hundred and eighty-seven patients, which were admitted during that time; of this number, two hundred and eighty-five, or a proportion of forty-eight and fifty-five hundredths per cent., recovered. The same institution again furnished statistics, from 1871 to 1875, inclusive, of nine hundred and fifty-three admissions, and three hundred and forty-nine, or a recovery of thirty-six and sixty-two hundredths per cent. The reports from these hospitals in Maine, approach more nearly the actual percentage of recoveries, than do the other institutions mentioned. There were admitted at the twenty institutions, in the course of the second five years of their operation, fourteen thousand five hundred and sixteen; the recoveries were in number, six thousand six hundred and eighty-nine; the proportion of recoveries to admissions, forty-six and eight hundredths per cent. The number admitted

during the last five years of their existence was, twenty-four thousand three hundred and eighty-three; the recoveries, eight thousand three hundred and fifty-four; and the per cent. of recoveries, thirty-four and twenty-six hundredths; these figures relate to cases and not to persons. The author does not believe that more than ten per cent. of insane people are curable, and to accomplish even this, they must have early and prompt medical assistance. W. F. L.

Nocturnal Terrors in very Young Children.—Jules Simon.—(*Gazette Obstetricale*, 5 May, 1877.) Infants at the breast are dyspeptic much oftener than is supposed, and are then subject, during sleep, to starts, and awakenings in fright, which at a later period are the result of true nocturnal terrors. Recently M. Simon was called in the middle of the night, to a little girl of three years who was the victim of a veritable hallucination. This child, convalescent from whooping cough, had started up out of her sleep uttering violent cries, saying that she saw before her an enormous insect which frightened her, and only regained her senses when spoken to; the light was painful to her, but still she would not remain in the dark. This state lasted the rest of the night, but had entirely disappeared the next day. These nocturnal terrors are not very rare among children, and are caused especially by digestive troubles, though they may be entirely independent of them. Inquiry should always be directed to the digestive functions when such a case occurs. But the possibility of poisoning should also be thought of, for certain poisons manifest their effect by painful hallucinations. Stramonium, in particular, determines these accidents, as Dr. Thors has shown in the case of a child who had swallowed a large number of the berries of this plant. In ordinary cases, calmatives, such as bromide of potassium, or belladonna, and a mild purgative answer all the indications. L. W. C.

Deafness as a Sign of Bright's Disease.—M. Dieulafoy—(*La France Médicale*, No. 16, 1877. M. Dieulafoy reports the following case of deafness, occurring in a patient suffering with Bright's disease: Four years ago, the patient had

œdema of the face, polyuria, dyspnœa, then amblyopia, epistaxis, in a word, the symptoms of Bright's disease. These different symptoms gave but little trouble until four months since, when the dyspnœa became greater, and the œdema suddenly generalized over the entire body; the urine became scanty and high colored,as if the parenchymatous nephritis had become interstitial. There was no cardiac hypertrophy, no *bruit de galop.* Examination of the urine showed a notable proportion of albumen, its density was 1021, and the microscope revealed the presence of hyaline cylinders and numerous deformed red globules.

Besides these symptoms, the patient relates that the malady was ushered in by violent pains in the left side of the face, (trigeminal neuralgia) and by a *complete abolition of hearing* on the same side. She is very explicit on this point; deafness of the left ear, with neuralgia and œdema of the left side of the face, marked the début of the malady. Since then the deafness has never improved.

In another patient presenting similar symptoms, the disease was ushered in by severe neuralgic pains in the left side of the face, the pains still persisting up to the present time, and *deafness of the left ear.* The patient noticed the dullness of hearing at the same time as the diminution of sight, about fifteen days after the œdema of the face. The hearing has never completely been restored.

These two examples of deafness occurring under almost identical circumstances, excited the author's attention, and the question presented itself, whether it was simply a coincidence, or whether the auditory alteration was not consecutive to the albuminous nephritis, and he was not unwilling to admit that the same morbid state might determine troubles in the optic and auditory nerves. In his researches upon this subject, the author has found an analogous example related by Rasenstein, who says it is probable that the accident was connected with an œdema of the auditory nerve.

A fourth example of dullness of the hearing of the right side having preceded the œdema in a patient attacked with interstitial nephritis, is mentioned by the author.

M. Dieulafoy draws no conclusion from these cases, but simply calls attention to deafness occurring in the course of Bright's disease. L. W. C.

A Statistical Retrospect of the Trichina Epidemics in Saxony.—Reinhard.—(*Archiv der Heilkunde*, 1877, No. 3 and 4.) In sixteen years, from 1860 to 1876, there were thirteen trichina epidemics. The number of sick persons was 1,266, of which 19, or 1.58 per cent., died.

But very few were infected through eating raw meat; mostly by eating hard, smoked sausages, and other varieties of sausages; over seven-eighths of all poisoned were infected through eating sausages; very few cases can be traced to the eating of ham. Out of the nineteen deaths, three were infected through eating raw meat; two by hard, smoked sausages; eight by eating common sausages, and two by eating ham.

The epidemics were confined almost entirely to large cities and to the thickly populated districts. The source of the infection was traced, twenty-nine times, to butchers, and only five times to meat raised for home consumption. The numnumber infected by one trichinosed hog is very small. It is determined that one medium hog furnishes meat for from 140 to 200 people; out of this number, on the average, not one-fourth are infected, and sometimes not more than twelve.

The tax-list showed that in these sixteen years, over 3,960,500 hogs were slaughtered in Saxony. Out of this number thirty-nine gave rise to epidemics, or one in 180,000 hogs. But observations disprove that trichinosis is so scarce among hogs. Microscopical observations were made in many parts of Saxony.

In Ebenbach, O. L., 2,034 hogs were examined, and one was found to be suffering from trichinosis; in Dresden, Dr. Meissner, veterinary surgeon, examined 3,346 hogs, and found four suffering from trichinosis; or one in 839. The most reliable examinations we have come from Braunschweig. Dr. Uhde examined 757,716 hogs, and found ninety-five infected, or one in 8,000.

Taking the average of tables presented, and we find one hog

in 7,706 suffering from trichinosis. This would give for Saxony, with her 6,960,000 slaughtered hogs, about 983 trichinosed hogs. Taking the number of epidemics in consideration, we have four in 100 infected hogs giving rise to such a visitation.

The author says: "Many believe that for every infected hog detected and condemned, so many lives have been saved, or rather, so much suffering prevented. But this is far from the truth, as above statistics have shown."

Neither does the author think that microscopical observations can be carried out in large cities with any degree of accuracy whatever. Several epidemics were caused by hogs that had passed microscopical examination. The examinations having been made by men whose ability to perform them could not be doubted.

Two Cases of Rattlesnake Bite Successfully Treated by Injections of Carbonate of Ammonia into the Veins. Knott. (*Philadelphia Med. and Surg. Reporter, July 21st and 28th*, 1877.) Case No. 1. Was seen fifteen minutes after having received a bite on the hand from a rattlesnake; a large drink of whiskey had just been administered; body bathed in profuse clammy perspiration; no pulse at wrist; respiration abdominal and irregular; pupils completely dilated; inability to swallow. A half drachm of the following solution was immediately injected into the superficial veins of the hand:

℞. Ammoniæ carbonatis, grs. xl; aquæ destillatæ ℥ j.

An almost imperceptable pulse at the wrist appeared, but was immediately lost again. A drachm injection of same solution into the cephalic vein produced almost immediately a pulse at the wrist of about thirty to the minute. The second and third injections followed by still greater improvement, and after the fourth, patient appeared as well as before the reception of the bite. On the following morning patient found in perfect stupor; pupils dilated; pulse feeble and irregular. Twenty-five injections of the ammonia were made in the course of an hour, under which the patient gradually returned to consciousness and sight. Patient was now put upon whisky

treatment to test its comparative merit. Large doses were given every fifteen minutes, and continued three hours, when he fell back with stupor, with feeble pulse, dilated pupils and abdominal respiration. Prompt relief was brought about by the injections of ammonia, the remedy being also administered by the mouth. Ordered quinine and beef tea. One more relapse occurred on the following day, which was relieved by four injections, after which the patient was convalescent. Discharged cured on the fourth day.

Case No 2. A colored boy was seen about ten hours after reception of the bite. Whisky had been given during the interval. After three injections of the solution of ammonia into the cephalic vein, the boy arose to his feet, without pain or inconvenience.

The following was ordered:

R. Spts. frumenti ʒ xvi; ammoniæ carb. ʒiiss Ft. Sol. Sig. Tablespoonful every two or three hours in water.

Patient was not seen again, but his recovery was affirmed.

The first patient, a man of intelligence, stated that the poison was felt not exceeding two minutes from the reception of the bite; the first symptoms being nausea and giddiness, with loss of sight. One point particularly noticable in the treatment with ammonia; on making an injection while the patient was under the influnece of the poison, the blood that escaped from the veins, by the needle of the syringe, was of an inky appearance. On the second injection, though made on the opposite side and immediately following the first, the blood presented more the appearance of arterial than veinous, showing plainly the powerful effect exerted by the ammonia in changing the condition of the blood.

Dr. K. is of the opinion, from his experience in these cases, that we have but little to fear from the introduction of air into the veins while employing ammonia, believing this agent prevents any serious effect there-from. But little attention was given to prevent the introduction of air, yet no bad effects were observed. The above cases are the first in which this treatment has been employed in this country. The credit of the introduction of this treatment into the profession, is due to Professor Halford, of Australia.

Intestinal Obstruction.—Dr. Southey—(*British Medical Journal*, May). The case was of a young woman, who had three days previously been attacked on board ship, with severe abdominal pain, complete obstruction of the bowels and stercoraceous vomiting. She had been treated by the ship's captain with calomel and jalap powder, every two hours. It was thought possible that obstruction was due to pelvic hematocele, as the attack occurred during her menstrual period; examination, however, failed to confirm the idea. Over the track of the colon it was hollow and resonant, but over the hypogastrium, hard, indicating an empty colon and loaded small intestines. A long tube was passed into the rectum, but only a little fluid could be injected through it, and that caused great pain. The following plan was then tried, with success. The patient was placed in the genu-pectoral position, a long tube inserted in the rectum, and the anus held closely around it. A siphon bottle of soda water was then connected with the tube, the bottle being placed in hot water to increase the elasticity of the gas contained in it. When the valve of the bottle was opened, the gas and water ascended into the rectum, causing enormous abdominal distention, and severe pain.

Two bottles of the soda water were thus used, when the patient felt "something give way or burst," and a copious action of the bowels followed. No medicine was used except subcutaneous injections of morphia. In two days the patient was well enough to undertake a journey. This plan of treatment which seems preferable to the simple injection of fluid, was recommended two years ago, in one of the French reviews.

On Constipation.—Thomson—(*The Medical Record*, May, 1877). Constipation is due to deficient action of the small, and some portion of the large intestines. Of the small intestines, there are two operative causes: deficient secretion, and want of innervation, or muscular action. Deficient secretion in the small intestines may be due to some disturbance of the liver, and constipation as a result, may date from

some severe form of fever in which the liver was involved. In such cases there is not a preponderance of fecal accumulation and impaction, but rather, instead, a sluggish action of the bowels, recourse to medicines being necessary to bring about a movement once in four or five days. The symptoms of deficient action of the small intestines other than constipation, are usually negative; the one which gives the patient the most discomfort, is a dull indefinite headache, located in the posterior part of the head, and is best relieved by such remedies as will promote a free discharge of bile. The tongue is not usually large and flabby, but is reddened along the edges and tip. The secretions of the mouth are commonly viscid. The treatment should not consist of mild cathartics, or purgatives, as the condition of the case would be provoked by them, but what is necessary, is to increase the amount of fluid in the intestines by causing the patient to drink a great deal more water than is his custom. The laxative action of the water may best be insured by the addition of some mild saline; the reason of this is the mixture formed by the union of some saline with water does not readily pass from the intestinal mucous membrane into the general system,—water being retained in the intestinal tube by the saline, excites peristaltic action of the bowels, and so produces an evacuation of its contents. To increase the power of action of the intestines, the author uses small doses of quinine, combined with sulph. magnesia, e. g. sulph. mag. ʒi., sulph. quin. gr. i., mixed and drank in a glass of water every morning. It takes, however, usually from one to two weeks before much effect is noticed.

Deficient innervation of the small intestines, as a rule, accompanies constipation in elderly persons, and also in those whose habits are sedentary. The means to be employed to overcome this form of constipation, are quite at variance with those used in the form of constipation just spoken of. If much water is given this class of patients, weakening of their digestive powers, followed by loss of appetite, and heaviness in the head, will be the result. To increase the innervation of the secretory apparatus, in those who are obliged to remain at

their occupations, water is applied externally. A sitz bath, with the water as cold as the patient can bear it, and have good reaction follow, will in very many cases work wonders. Sponging the spine and bowels with cold salt water, made as irritant as can be borne, on rising in the morning, is a very efficient method of using water externally. Some cases are benefited by giving the bowels a local shower-bath.

Of the large intestines, the same causes work the same results. Deficient innervation is by far the most common in this form of constipation. Large fecal accumulations, resulting from want of nerve power in the colon, or rectum, are usually present without the patient's knowledge, and rectal abscess may be the result. The treatment consists in keeping the rectum empty by means of enemata, but great care should be exercised against using the syringe every morning for any considerable length of time, as such a habit is likely to become fixed. After using the syringe to remove accumulations in the bowel, other measures for restoring lost innervation to the organ should be instituted. Strychnia used hypodermically into the sub-mucous tissue, often proves very efficient.

W. F. L.

II. Surgery.

A Family of Bleeders.—Lossen (*Deutsche Zeitschr. f. Chir.* Band, v. 3).—The family Mampel, of Kirchheim, near Heidelberg, can be traced back to the last century. The originators of this line were married in 1798, both of healthy parentage, in the best of health. They had six sons and four daughters; of the former three were bleeders. In the following generation there were thirty-two children belonging to two of the daughters; of these, thirteen were troubled with the hemorrhagic diathesis. In the third generation there was only one case. All those afflicted were male children, and in appearance did not differ from the rest. *The children of the bleeders remained unaffected. The disease was inherited entirely from the female members, who themselves, however, were not troubled with hemorrhagic diathesis.* During three genera-

tions the family counted one hundred individuals, of which seventeen were afflicted with the hemorrhagic diathesis, and nine died of profuse hemorrhage. The hemorrhage occurred from slight external wounds, or from internal, subcutaneous and intermuscular wounds, and sometimes from simple contusions. Hemorrhages also occurred from the gums, the nasal and bronchial mucous membrane, and the mucous membrane of the stomach and bladder, and in the joints hemorrhage frequently took place.

Of the nine fatal cases of hemorrhage, six occurred from simple wounds, one was subcutaneous, one occurred from the lungs, and one from the stomach.

The Most Frequent Cause of the Retention of Urine in Old People.—Prof. W. Busch (*Langenbeck's Archiv Bd.* xx. —3).—The sphincter of the bladder, and the internal orifice of the urethra are very near each other in boyhood, therefore, the the pressure of the urine against the lower part of the bladder finds an easy outlet through the internal orifice. This explains very clearly and easily the enuresis nocturna of children. At puberty the prostate begins to increase in size, and the sphincter is then caused to recede, and a greater force is necessary to expel the urine. If the prostate becomes hypertrophied, the part above the caput gallinaginis becomes enlarged mostly, so that the enlargement encroaches on the bladder, the internal orifice of the urethra is moved toward the bladder, and upward so as to occupy the highest point of the prostatic tumor. It no longer forms the lowest part of the apparatus, but is surrounded on all sides by portions of the bladder, particularly posteriorly, where the bladder has a tendency to assume a ventricular form. When the bladder contracts the whole pressure is exerted against the prostatic enlargements, causing the lobes to approach each other, which in turn are pressed against the interior orifice of the urethra, thus closing it tighter instead of opening it.

This, according to the author's opinion, is more frequently the cause of retention than the enlargement of the middle lobe of the prostate and its action as a valve in the urethra, as is frequently described.

The author's opinion is further strengthened by the fact, that persons suffering from enlarged prostates are not able to expel their water while standing, but they can do so by bending over so as to bring the lowest part of the bladder on a level with the internal orifice.

The autopsy of an old man further confirms the author's opinion. Some time before his death he was unable to pass water, and was obliged to use the catheter. It was found that the prostate gland was not enlarged, but that the bladder immediately behind the prostate had assumed this diverticular form. Now, when the bladder was filled and force was used, this diverticulum was filled up and the prostate was pressed against the urethra as above described, and prevented the escape of urine.

Struma Pulsans Acuta.—Prof. Lucke (*Deutsche Zeitschrift f. Chir.* Band. vi.). The author objects to using the terms, pulsating goitre, and aneurismal goitre, synonymously. Aneurismal goitre as described by Virchow—where the arteries are dilated—has never been observed by the author.

The greatest number of pulsating goitres are not aneurismal in the full sense of the word. They present the clinical symptoms of aneurism; compressibility, pulsation, and murmur—the same as the pulsating sarcoma; but the dilatation of the arteries is nothing permanent as in an aneurism.

Pulsating goitres occur mostly in youthful individuals. The author thinks they have no connection whatever with Graves' disease.

In 1876 Strassburg was visited by a goitre epidemic, and during this visitation L. observed many cases of pulsating goitres. This pulsating goitre occurs only in the most acute cases, and in the majority of cases preceding strumous diathesis could not be discovered. This acute swelling of the thyroid gland occurs sometimes with such rapidity as to produce the same symptoms as the acute inflammation of the glands; dyspnœa, tracheal stridor and consecutive cyanosis, in consequence of the obstructions to venous circulation. Headache pharyngeal difficulties, etc. These symptoms appear with dif-

ferent degrees of severity. Sometimes these symptoms disappear and the patient recovers, or the pulsations cease, and an ordinary strumous swelling remains.

This complaint is susceptible to treatment; application externally or parenchymatous injections, generally of iodine, being sufficient.

The acute pulsating struma is a tumor not circumscribed and consists, in a majority of cases, of the whole gland. It is soft and disappears under gradual pressure. By palpation the pulsation is very evident. Pulsation is more or less visible, it is most apparent in those cases where there is the greatest dyspnœa; pulsation is also great in the neighboring carotid.

The author is of the opinion that the pulsating struma is but a stage in the development of the acute goitre, and that if the disease persists it will finally form a common goitre, and not an aneurismal tumor. This form of pulsating tumor shows itself mostly in epidemics of acute goitre. It occurs mostly in young people up to the age of 17 years.

The author says there must first be a thorough infection by the goitre miasma, and following this comes the acute dilatation of the capillaries and obstruction to the circulation of the thyroid artery, and in some measure the carotid. He further says that there is considerable analogy between the pulsating struma and pulsating sarcoma as regards the dilatation of the capillaries.

To Prevent the Entrance of Liquids into the Eustachian Tube.—E. Zaufal. (*Monatsschrift für Ohrenheilk.* xi, 4.) In the Präger Med. Wochenschrift Prof. Z. discusses the various measures which have been observed, in order to avoid the unpleasant consequences, that have been known to sometimes arise from the entrance of liquid medicines into the Eustachian tube. He comes to the conclusion that on the one side we can not successfully treat the diseases of the nasal and nasopharyngeal cavities without the use of medicinal fluids, and on the other side all the safeguards so far employed, can not always prevent the fluid from entering the Eustachian tube. Z. now recommends a maneuver which, he claims, will most as-

suredly render that accident impossible. Standing behind the patient the surgeon, with two fingers, shall push the soft palate boldly upward toward the tubal orifices while liquids are injected into the nostrils. The procedure is painless and not unpleasant, *if only the pressure upon the velum palati be strong.* A slight and slow manipulation occasions a repeated retching, but a strong, bold push causes just one contraction of the pharyngeal muscles that even assists to tightly close the Eustachian tube. Experiments on anatomical preparations as well as the examination with his naso-pharyngeal speculum, have convinced Z. that the tubal orifice is mechanically blocked up by the soft palate whenever the latter is moved upwards, either by the action of its levator as in phonation or by a pressure from below as by the surgeon's fingers.

The Naso-pharyngeal Speculum.— E. Zaufal. (*Monatsschrift für Ohrenheilk.* xi, 4.) Prof. Z. has recently introduced a funnel-shaped speculum for the direct inspection of the naso-pharyngeal space. These specula come in sets, varying from 9 to 11 centimetres in length, and from 4 to 8 millimetres in width. They are introduced through the inferior or middle nasal meatus, and allow a direct illumination by a reflector, of the posterior nasal and naso-pharyngeal cavities. By means of these specula, Z. was able to diagnose pathological conditions of the naso-pharyngeal cavity in many cases, where without them a correct diagnosis could not be made. But these specula also simplify and facilitate the application of medicine, and the performance of the most frequent operations in the naso-pharyngeal space. The application oftenest called for in that cavity is the cauterization either of ulcers of different kinds, or of hypertrophied tissue around the Eustachian orifice, or of enlarged follicles, or of polypoid vegetations, or of the whole tumefied mucous membrane. Pushing the speculum in so far that its end fairly encircles the spot which is to be cauterized, the surgeon can be perfectly certain of the extent of his application, no matter whether he uses the pure or mitigated caustic, or chromic acid, or the electro-cautery, (in the latter case the speculum must be of hard rubber, which

requires a stronger illumination). No other mode of cauterizing is so simple, so painless, so convenient and so efficient as the cauterization by means of the naso-pharyngeal speculum. Another operation in which the naso-pharyngeal speculum can be of great value, is the removal of retro-pharyngeal polypi, by means of the cold or heated wire snare. The difficulty of this operation consists in nicely adjusting the snare around the basis of the tumor so that it will not slip. Now, in the first place, the inspection through the speculum will complete or correct our diagnosis as to the actual site of the basis of the tumor, then when the wire is applied from the mouth, we can examine through the speculum as to its proper application, carefully adjust it, and by means of a proper tenaculum prevent its slipping off. Z. reports three cases to substantiate his remarks, and to illustrate the working of his speculum.

Urethrotomy in a Girl of 9 Years. M. Périer. (*L'Union Médicale*, No. 32, 1877.) M. Périer read a report to the *Société de Chirugie* of a case of urethrotomy, by M. Lemay, upon a little girl of 9 years, who had introduced a needle within the urethra. The needle, escaping from the hands of the child, had penetrated the bladder, and had given origin to a calculus, which interfered with the functions of the organ. The operation allowed extraction of the calculus, which had the needle for a centre, and weighed 15 grammes, (231 grains); a cure followed the operation. The needle had remained in the bladder one month, according to the assertion of the little girl.

The following discussion took place:

M. Théophile Anger offered some remarks upon lithotomy in women for the extraction of vesical calculi. He has twice performed urethrotomy in cases of this kind. In the first case it was a woman of 45 years, who had a stone in the bladder for two years. The stone was small, but occasioned incessant pain. The extraction, by means of urethrotomy, was followed by a rapid cure. M. Anger has since seen the patient, who has had no incontinence of urine.

Last year, M. Anger operated in the same manner upon a

young lady of 18 years, who had an immense calculus, which gave her intolerable pain. He succeeded in making, after chloroforming, a large incision, with a probe-pointed bistoury, which gave rise to a considerable loss of blood. The patient got well, but for several months had incontinence of the urine, which had now almost entirely disappeared.

Upon the whole, M. Anger believes that urethrotomy gives better results than vaginal lithotomy.

M. Paulet understands how one may hesitate between urethrotomy and vaginal lithotomy in the case of an adult woman. But it is different in the case of a child, and the choice is not always possible. Some time since, a little girl was brought to him, 12 years of age, but who appeared to be no more than 8 years. She had a stone in the bladder. The question was how to get it away. There was no room by way of the vagina, and vaginal lithotomy was impossible. M. Paulet tried lithotrity, but it was impossible to crush the stone, even with the lithoclast of M. Guyon. He decided to try urethrotomy. A superior incision, made with a probe-pointed bistoury, allowed the introduction of the forceps and extraction of the calculus. There was incontinence for 15 days.

M. Verneuil said that lithotrity in women should be renounced only when its impossibility is evident. After lithotrity, he places the vaginal operation in the first rank, except in children. For very large calculi there remains supra-pubic lithotomy. Cases of incontinence of urine after urethrotomy are not rare. M. Verneuil cites the case of a little girl, upon whom urethrotomy was practiced without success; the stone would not pass; supra-pubic lithotomy allowed the extraction of the stone. The child got well, but incontinence remained, as a result of the urethral incision. Vaginal lithotomy rarely causes a permanent fistula.

To sum up, according to M. Verneuil, urethrotomy should be the exceptional method; he rejects equally forcible dilatation of the urethra. He prefers lithotrity, and if that is inapplicable, the sub-pubic or the vaginal operation.

M. Tillaux wished that this question of lithotomy in women

might be cleared up. Malgaigne rejects absolutely the urethral operation, because of the incontinence of urine, and advises the vaginal operation. On the other hand, M. Reliquet declares himself absolutely in favor of urethrotomy, and rejects the vaginal operation.

According to Reliquet, incontinence of urine after urethrotomy depends upon dilatation of the vesical neck without previously chloroforming the patient; the vesical sphincter is then torn, while this accident is not to be feared with chloroform.

M. Verneuil gives the first place to lithotrity in women, when it is possible. According to M. Tillaux, this operation would be less favorable in women than in men. Lithotrity requires the crushing of the stone in a bladder filled with fluid. Now, the liquid does not remain in the female bladder; it comes out with the instrument, and one must work in an empty bladder. M. Tillaux concluded by saying that it was necessary to review the question of lithotomy in women.

M. Launelongue thinks that many surgeons perform lithotrity in the empty bladder, and that it is easier than with fluid in it. The bladder in women is more tolerant than in men, except, however, in young girls. According to important documents collected in the thesis of M. Hybord, lithotrity in women, compared with lithotomy, is an easy operation, not dangerous, and should be practised whenever possible.

Between vaginal lithotomy and urethrotomy, M. Launelongue pronounces himself for the former; it favors healing when disease of this organ complicates calculus.

M. Duplay said that in America, vaginal lithotomy is a current operation, and gives good results. He thinks, with M. Tillaux, that lithotrity is difficult in women, and he regards, above all, lithotrity in the empty bladder as a surgical heresy.

M. Duprès declares that urethrotomy is a bad operation, because it gives no more space than dilatation of the urethra. For himself, he prefers dilatation when haste is required, and lithotrity when one may go more slowly about it. In the latter case, he does not think it more useful to make injections

into the bladder, but it is necessary at least, that there should be a little urine present.

M. Marjolin has observed that in little children the bladder is very intolerant, and keeps with difficulty, liquids injected into it. He has noticed, moreover, that calculi are rare among girls; he has seen but one in 18 years.

M. Leon Le Fort said that Thompson advises emptying the bladder first, and then to inject 150 to 180 grammes of liquid. There would be no danger, according to him, in performing lithotrity in the empty bladder.

M. Verneuil this morning performed lithotrity in a woman, or attempted it, rather, but did not remove the stone. He introduced the lithotrite, and moved it easily about the bladder, which was empty, without causing pain. But it is not always so. Certain patients have energetic contractions which do not permit manipulation with the lithotite. It becomes necessary then to inject with precaution, a certain quantity of fluid. It is generally well to have liquid in the bladder.

M. Trelat, when he has a lithortrity to perform commences by emptying the bladder, then injects a moderate quantity of liquid. According to him, it is working blindly to operate without knowing whether or not there is liquid in the bladder.

M. Marc Sée remembers that Nélaton used to empty the bladder, and then inject a certain quantity of water before operating.

M. Périer, the reporter, said that he had only in view, in his report, calculi in girls. In the report of operations made at St. Bartholomew's Hospital, London, by Walch-Hall, it is shown that lithotrity in young girls is injurious. Walch-Hall first dilates the urethra; if the stone is large, he has recourse to the sub-pubic operation; if it is of medium size, he tries vaginal lithotomy. M. Périer believes that incontinence of the urine is less frequent than M. Verneuil supposes after urethrotomy. L. W. C.

A New Method of Curing Popliteal Aneurisms.—Martin Burke, M. D.—(*N. Y. Medical Journal*, June, 1877.—There has recently been introduced into the surgical wards of

Bellevue Hospital a novel method of treating Popliteal Aneurisms, which has thus far proved successful in its application. It consists in the employment of a conical shot-bag suspended from a height by a rope, the apex of which cone presses upon the femoral artery in Scarpa's space and causes all pulsation to cease in the aneurism below. The shot-bag is made of canvas in the form of a flattened cone, its apex measuring one inch in diameter. A rounded piece of cork or india rubber is accurately fitted to the inside of the apex of the cone; a hollow rod of bamboo reaches down to and rests upon the rubber or cork, being held directly in the centre of the cone, while the shot is filled around it to the requisite weight, being about twelve pounds. A cover of canvas is tightly stitched over the base, in the centre of which is an aperture for the passage of the rod. A stout wire hook is fastened to the centre of the base of the cone, to the rod as it emerges from it, and the apparatus is then ready for suspension. To suspend it a pully is driven into the ceiling through which is passed a rope, one end of which is directly attached to the wire hook in the shot-bag, having first been passed through rings attached to the bamboo rod to keep it in place. To the free end of the rope is attached a hollow rubber tubing, to give elasticity to the apparatus, to the extremity of which is attached a hook which connects with the hook in the centre of the base of the shot-bag by means of a linked chain. The amount of pressure is regulated by lifting or lowering the weight in the links of the chain. With the apex of the cone resting on the femoral artery the pressure is carefully regulated until pulsation ceases in the aneurism, no greater pressure being allowed than is necessary to produce this effect.

Three cases are reported as having been successfully treated by this method. The minimum time of application required to produce cessation of the pulsation in the aneurism, was six days, but for security the apparatus was allowed to remain some days longer. The maximim time was sixteen days. The patient suffers but little pain and but little inconvenience. There was no excoriation at point of pressure. A suggestion is put forth that not only for popliteal aneurism, but for aneu-

risms of other arteries and also for some cases of secondary hemorrhage, with certain modifications, this apparatus may be successfully applied.

III. Therapeutics.

A Large Dose of Croton Oil. Sharp. (*The Ohio Med. Record*, May, 1877.) A lady, through mistake, swallowed about a teaspoonful of croton-oil. Discovering the accident, she alarmed the family, who immediately summoned medical assistance. Free administration of sweet milk and cream, and olive oil, in connection with white of eggs and an emetic dose of mustard was given, and supplemented by large doses of sulphate of zinc at short intervals. Patient was also allowed to drink freely of mucilage of gum acaciae. She recovered rapidly, with no ill effects from the oil. W. F. L.

Woorara in Tetanus. Knecht. (*Translated by Watson, N. Y. Med. Jour.*, June 1877.) Dr. K., physician to the prison at Walhiem, has collected a record of fifteen cases of Tetanus treated with Woorara. Two of the number were Tetanus Rheumaticus, and thirteen were Tetanus Traumaticus. The two former recovered, and seven out of the thirteen of the latter. The remedy was administered largely subcutaneously, but a few cases received it also by the mouth.

With some of the cases, chloral was given at the same time, but the greater number were treated by Woorara alone.

The dose by injection was $\frac{1}{125}$th of a grain, which was gradually increased to $\frac{1}{6}$th of a grain, no effect being discovered until the latter dose was reached, after which a remission of the trismus was perceptible.

The maximum dose was $2\frac{1}{3}$ grains. The usual dose was $\frac{1}{2}$ a grain, repeated from two to five or seven times daily, according to the severity of the case.

The greatest amount received by one patient during the course of treatment, was $18\frac{3}{4}$ grains. In this case a condition of general paralysis was produced, with cessation of respiration, which was controlled by applications of electricity, after which improvement rapidly progressed to recovery.

LIST OF PHYSICIANS, in the State and city, who have been licensed to practice medicine by the State Board of Health, to date:

Drs. W. H. Byford, graduated Ohio Medical College, Cincinnati, March 4, 1844; Reuben Ludlam, Medical Department University of Pennsylvania, March, 1851; Robt. L. Rea, Medical College of Ohio, Cincinnati, March 1, 1855; John H. Rauch, Medical Department University of Pennsylvania. March 20, 1849; Ralph E. Starkweather, College of Physicians and Surgeons, N. Y. City, Nov. 10, 1858; Charles C. Buckley, College of Physicians and Surgeons, N. Y. City, March 12. 1867; Charles H. Vilas, Hahnnemann Medical College, Chicago, March 14, 1873; Eddy Bert, University of Göttengen, Germany, Dec. 23, 1864; Samuel Ingraham, Bennett Medical College, Chicago, June 20, 1877; Henry M. Bannister, Columbian College, Washington, D. C., June 20, 1871; Joseph S. Lane, Licentiate Rock River Medical Society, Beloit, Wisconsin, March 16, 1847; Francis A. Emmons, Rush Medical College, Chicago, 1863; King Barton Hunter, University of Nashville, Tennessee, Feb., 1877; Brock McVickar, Fairfield Medical College, Fairfield, N. Y., 1831; Robt. Hunter, University of New York, March 5, 1846; Edwin W. Hunter, Rush Medical College, Chicago, Feb. 21, 1877; Ambrose M. Read, Bennett Medical College, Chicago, Feb. 21, 1877: H. D, Garrison, Eclectic Medical Institute, Cincinnati, Ohio, May 12, 1857; Cornelius A. Logan, Miami Medical College of Ohio, Cincinnati, Feb. 28, 1853; Oscar C. DeWolf, Medical Department University of N. Y., March 2, 1858; E. F. Buecking, Bennett Medical College, March 2, 1876; H. E. Hildebrand, Bennett Medical College, June 22, 1877; William P. Peirce, University of City of N. Y., March 6, 1852; Richard N. Foster, Hahnnemann Medical College, Chicago. March 20, 1869; Joel R. Gore, Medical Department University of N. Y., March 8, 1850; Charles Adams, Hahnnemann Medical College, Feb. 26, 1872; Geo. M. Fox, Castleton Medical College, Castleton, Vt., June 26, 1851; D. Q. Sheppers, Rush Medical College, Chicago, Jan. 26, 1866; Sarah Hackett Stevenson, Woman's Hospital Medical College of Chicago, March 2, 1875; Julius T. C. Hoffman, Rush Medical College, Feb. 3, 1868—University of Würzberg, Germany, Aug. 2, 1870; Robert B. Treat, Eclectic Medical Institute of Cincinnati, Ohio, 1847, P. S. Hayes, Rush Medical College, Chicago, Jan. 17, 1872; Justin Hayes, Cleveland Medical College, Cleveland, Ohio, March 10, 1850; Swayne Wickersham, University of Pennsylvania, March, 1855; Joseph B. Rood, Rush Medical College, Chicago, Feb. 5, 1868; J. Owen Hughes, Rush Medical College, Chicago, Jan. 25, 1867; John Geurin, Rush Medical College, Chicago, Feb. 1866; John M. Pilsbury, Jefferson Medical College, March 10, 1865; John E. Gilman, Hahnnemann Medical College, Feb., 1871; Michael T. O'Clery, Rush Medical College; Charles White, Rush Medical College, Feb. 15, 1863; James I. Tucker, Medical Department Harvard College; Alexander Fisher, Fairfield Medical College, March, 1834; Edward A. Ince, Hahnnemann Medical College, Feb. 12, 1877; Jonathan W. Brooks, Jefferson Medical College, March 4, 1835; Wm. F. Kessler, University of Leipsic, Saxony, April. 1847; James S. Stitt, Chicago Medical College, Chicago, March 9, 1869; Stephen O. Richey, Chicago Medical College, March 21, 1876; Emil Schattenfels, Bennett Medical College, May 21, 1874; John G. S. Mohr, University of Copenhagen, Denmark, July 5, 1867; Timothy R. Nute, Dartmouth Medical College, May, 1850; W. H. Woodyatt, Western Homœpathic Medical College, Feb. 27,

1869; John Reid, Jefferson Medical College, Philadelphia, March, 1847; Frederick A. Hess, Rush Medical College, Feb. 19, 1873; William E. Clark, Vermont Medical College, June 10, 1845; T. B. Shanahan, Rush Medical College; Thos. T. Ellis, The Royal College of Physicians, Edinburgh, Scotland, March, 1842; Alex. H. Cooke, University of the City of New York, March 6, 1846; J. Spafford Hunt, Jefferson Medical College, Philadelphia, March 8, 1856; Geo. P. Cunningham, Rush Medical College, Feb. 21, 1877; Julius Otto, The Chicago Medical College, March 21, 1876; Jacob May, Rush Medical College, Feb., 1876; A. W. Woodward, Hahnnemann Medical College, March 25, 1865; Norman Bridge, The Chicago Medical College, March 9, 1868; John F. Williams, The Chicago Medical College, March, 1865; Henry Upton, Rush Medical College, Jan. 25 1867; James H. Bates, The Long Island Medical College, June 24, 1874; William Tracy, Rush Medical College, Feb. 1, 1877; Gustav H. C. Fricke, Rush Medical College, Feb. 3, 1869; P. O'Connell, The Queen's University in Ireland, June 19, 1872; Louis Varges, The University of Gottingen, May 21, 1833; M. B. Carleman, Rush Medical College, Feb. 3, 1869; John Nicolai. Medical Department Lind University, Chicago, March 4, 1861; Joseph F. Beseler. The University of Berlin, Germany, March 14, 1838; John C. Webster, Harvard Medical College, March 13, 1867; G. C. Paoli, Rush Medical College, Jan. 24, 1866; Eugene S. Atwood, Rush Medical College, Feb. 21, 1877; A. F. Weekes, Rush Medical College, Feb. 22, 1849; C. A. Wilbur, The Castleton Medical College, June 20, 1852; Adelia Barlow, Woman's Hospital Medical College, Chicago, Feb. 29, 1876.

ANNOUNCEMENTS FOR THE MONTH.

Societies.—Mondays, September 3d and 17th, Chicago Medical Society. Mondays, September 10th and 24th, Chicago Society of Physicians and Surgeons.

Clinics.—Saturdays, at Rush College, at 2 P. M. Surgical, Prof. Gunn. Tuesdays, at Chicago Medical College, 9 A. M. Surgical, Prof. Hyde.

Lectures.—Mondays, 4 P. M., at Cook County Hospital Necroscopy Theatre. On Pathological Anatomy, Prof. I. N. Danforth.

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Original Communications.

THE RESPIRATION OF COMPRESSED AND RAREFIED AIR IN PULMONARY DISEASES.

By F. H. Davis, M.D., Chicago.

(A Paper Read before the Chicago Society of Physicians and Surgeons, April, 1877.)

The application of compressed and rarefied air to the treatment of certain pulmonary and cardiac diseases, has been the subject of considerable study and experimentation during the past few years, especially in Germany.

The results of these observations and experiments have been given to the profession through the writings of Waldenberg, Fränkel and others, and in the original or through translations have attracted some attention in this country. Cohen, in the new edition of his treatise on "Inhalations," devotes a chapter to this subject, giving a very good summary of the effects to be derived from the inhalation of compressed and rarefied air, illustrated by the various apparatus devised for its practice, etc.

For stationary and office use the apparatus of Waldenberg has been the most efficient and convenient. It consists of an

ordinary gasometer of sufficient size so that from 40 to 60 breaths would be required to empty it. The size, however, is immaterial, except as a matter of convenience. By raising the gasometer full of air and placing weights upon it, any desired pressure can be obtained; or attaching the weights upon the cords running over the pulleys, when the tank is depressed and emptied of air, the suction power or rarefied air is obtained. The addition of a manometer or gage to record the amount of pressure or suction obtained, is useful only for the purpose of scientific experimentations and record.

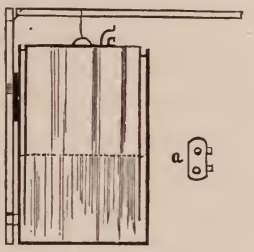
The lungs are very sensitive to pressure or suction, and will tolerate an increase or diminution of pressure of not more than from $\frac{1}{60}$ or $\frac{1}{70}$ to $\frac{1}{30}$ or $\frac{1}{40}$ of an atmosphere. The feelings of the patient are a sufficiently safe guide however, and he will naturally withdraw the tube from the mouth if the pressure becomes too great.

One thing has been lacking in order to popularize this mode of treatment and render it practically valuable. This has been a cheap, transportable apparatus, capable of being easily extemporized or manufactured whenever and wherever wanted. Patients must in many instances be enabled to follow out the treatment at their own houses where they can use it for a short time several times through the day.

One form of apparatus, Fränkel's, partially answers this purpose, in that it is not very expensive and is transportable. This is in the form of an accordeon-bellows, and held in the patient's lap, is worked by the hands. The mode of using it, however, requires considerable manual power, and is consequently tiring to the patient. The bellows are not durable, and if used for a number of different patients are liable to become contaminated by the absorption of the exhaled matters of the breath by the leather. A metal apparatus, as being readily washed and cleansed and also more durable, is preferable.

After some experimenting, I have devised the instrument shown in the accompanying cut to meet the requirements of many patients, and have now several of them in use. It consists essentially of a small metal gasometer, 15 in. in diameter

by 24 in. in height. It is best made of galvanized iron, which will not rust. Two bands are soldered on to the side of the tank, into which a piece of wood is slid, reaching 12 inches above the top of the tank. To this, as a fulcrum, is hinged a wooden lever, two feet long, attached to a handle in



the middle of the inner tank. A very slight exertion on the part of the patient, raising or lowering this lever, produces all the pressure or suction necessary.

This apparatus can be made by any tin-smith, and with three feet of three-quarter in. rubber-hose, costs from four to five dollars. In this, as in all the other forms of apparatus that have been devised, the patient inspires the compressed air, and expires into the ordinary atmosphere; or, *vice versa*, expires into rarified air, and inspires again the ordinary atmosphere.

Believing that, in many instances, still more marked results could be obtained by combining the two acts of inspiration of compressed air and expiration into rarified air, I had made for use in my office an apparatus, consisting of two small gasometers, as just described, placed side by side, and so arranged that one lever would raise or depress the two at once. Tubes from each gasometer pass to a double mouth-piece, so that as the lever is raised the patient expires into the one, the other being at the same time raised full of fresh air; he then inspires this fresh air as the lever is depressed, the foul air at the same time emptying itself from the first tank. Using two separate tanks, the one always to expire into, the other to inspire from, there is no possible danger of contamination of the water or walls of the gasometer used for inhalation. The

simplest form of mouth-piece for this double apparatus is that shown in *figure a*. Two tin tubes are connected by a tin plate, four inches by two and one-half. This tin plate should be covered with a cloth or leather pad, which coming under the nose will prevent the current of air from passing that way. The mouth is simply changed from one tube to the other with the act of inspiration or expiration.

I have rendered my office-apparatus now quite perfect by the addition of a three-way sliding valve attached to the lever, which changes the current from one tank to the other, the patient thus inspiring and expiring from the one mouth-piece. I have also attached a light gauge, somewhat after the form of a steam-gauge, which shows the exact amount of pressure or suction used.

As thus completed, the apparatus would cost to have manufactured from fifteen to twenty dollars.

These apparatuses claim nothing new in principle, but are offered merely as suggestions to physicians who may have suitable cases for which they would like to extemporize an apparatus, or who wish to have a cheap apparatus for trial and use in their offices. The same apparatus will answer an excellent purpose for artificial respiration in cases of asphyxia, or in vivisections and physiological experiments upon animals.

In regard to the mode of action of this compressed or rarified air upon the respiration or circulation, I would quote the following epitomization from the chapter before alluded to in Cohen on Inhalation.

Inspiration of compressed air increases the pressure on the lungs, and thus augments the vital capacity ; the chest becoming expanded to a greater extent than can be accomplished by the most powerful voluntary inspiration of normal air. As a matter of course, there is a consequent pressure exerted on all the organs in contact with the lungs, and on all the contents of the thorax. The action of the heart is increased, and the pressure in the arteries augmented, so that the arterial walls are distended, and the pulse becomes full and hard. The afflux of venous blood to the right auricle is impossible, and the blood accumulates in the arterial system, the pulse becom-

ing lowered in frequence from four to ten beats in the minute.

Expiration into compressed air diminishes the quantity of expired air in proportion to the density of the compressed air. The interchange of gases is impeded, and if pushed to excess, it will induce apnœa. It will strengthen the power of the auxiliary muscles of expiration. The effects on the circulation are similar to that of the inspiration of compressed air, but in a greater proportionate degree.

Inspiration of rarefied air diminishes the actual amount of air inspired, and if pushed to excess renders inspiration difficult, and produces apnœa. It strengthens the auxiliary muscles of inspiration. Its action in the circulation is just the opposite of the effect of inspiration of condensed air. The intrathoracic pressure is diminished, and its physical influence is exerted upon all the organs within the thorax. The heart's action is improved and marked, and the pressure in the arterial system diminishes; the pulse becomes soft, thin, compressible, and more frequent. The afflux of venous blood to the right auricle is facilitated, and blood accumulates in the pulmonary circulation, and diminishes in the general circulation. Pushed to excess it may induce hæmoptysis. Expiration into rarefied air increases the amount of air expelled from the lungs, and the lung contracts to a greater degree than it does under the most powerful effort of normal expiration. A greater proportion of carbonic acid gas is therefore given off, and the succeeding inspiration is the more powerful and effective. It thus tends to decrease the volume of emphysematous lungs, and to increase the vital capacity of the lungs. The respiratory power is increased in both its acts. It affects the circulatory apparatus similarly, to the inspiration of rarefied air, but in a much less degree. The pressure is diminished in the arterial system, and the pulse becomes soft, compressible, small and more frequent. Blood accumulates in the intrathoracic organs, and diminishes in the remaining portions of the body.

My own experience in the application of this form of treatment covers but a brief period and a limited number of cases. These cases may be grouped and the results summarized as follows:

First, a class of young persons, varying in age from twelve to twenty, of slight physique and slim build. Chests flat and narrow, and generally a tendency to a stooping of the shoulders, and a deficient expansion of the chest in respiration; also a natural disinclination to active out-door exercise and sports. This assembly of symptoms, accompanied by a sensitive condition of the air passages, caused frequent attacks of laryngeal and bronchial catarrh. Physical examination, however, revealed no evidence of tubercular deposits. In about one-half of these cases, however, the family history revealed tubercular or scrofulous taint.

The inhalation of compressed air for from five to ten minutes, once or twice a day, produced marked and rapid improvement in all these cases.

The size of the chest, on full inspiration was increased from one-half inch to one inch in the first month, and a habit of fuller, deeper breathing and a more erect carriage was established. Under the use, at the same time, of some efficient nutrient tonic, as malt extract, in combination with the hypophosphites or cod-liver oil, the general nutrition and flesh was improved, and the sensitiveness to cold and catarrhal attacks was diminished.

A second group of cases comprise those diagnosticated as incipient or primary tuberculosis.

The diagnosis was founded on about the following assemblage of symptoms: A more or less rapid loss of flesh and strength. Impaired appetite and digestion. Some shortness of breath on exercise, and perhaps slight pains in the chest, referable more particularly to the infraclavicular and interscapular regions of one side. Generally slight hacking cough, and expectoration, if any, slight and of an ordinary catarrhal mucous character. Chest, on inspiration, generally rather flat and narrow, and spare of flesh. Rather harsh bronchial respiration, prolonged expiration, and some degree of bronchophony apparent in the superior portion of one lung on auscultation. More or less marked dullness on percussion on same side.

In this assemblage all, or a majority of the symptoms were apparent in all the cases of this group.

The inhalation of compressed air was combined, in some of these cases, with the exhalation into rarefied air. The same tonic constitutional treatment was also pursued. The results of treatment in this group of cases were evidently influenced very materially by the course and origin of the disease.

A person of naturally healthy constitution, and giving no family history of tuberculosis, but following a sedentary, confined or unhealthy occupation, is attacked with a cold or ordinary catarrhal bronchitis.

Perhaps he has been previously subject, more or less frequently, to similar attacks, but has never found them to coninue so long, or to affect his general flesh and strength as this attack has done. Stooping over his desk or work bench, or at the sewing machine, as the case may be, there has been a deficient expansion of the lungs, and consequently deficient aeration of the blood. The waste, effete material accumulates in the blood and system, and impairs the general tone and vitality.

Portions of the lungs not fully and freely expanded, under these circumstances, become the seat of chronic congestion, and finally of exudation and infiltration. This process may go on slowly and imperceptibly for a considerable period of time, until finally a slight catarrhal inflammation is the means of starting it into activity.

If allowed to progress unchecked, these cases of phthisis of inflammatory origin, if we so designate them, or of chronic catarrhal pneumonia, according to the German pathologists, follow exactly the same course, to the same fatal termination, as tuberculosis of hereditary origin.

These, however, as has long been recognized, are manageable and curable cases, if taken in the early stage. Change of occupation and out-door life, with free, full, deep breathing and expansion of the lungs, will arrest the progress and cause the re-absorption of such granular or tuberculous deposits in a majority of instances.

If the air-passages are very sensitive and the seat of chronic catarrhal irritation, a change of climate may be necessary to overcome this element in the case.

The first and most important step in the treatment is, however, to establish and fix the habit of full, deep respiration.

Deposits and exudations can only be re-absorbed through the re-establishment of the active capillary circulation in the part, and this is of course dependent on its free expansion. In the accomplishment of this purpose, we believe the inspiration of compressed, and the expiration into rarified air, as already explained, to be the most certain and efficient aid.

Prompt and rapid improvement has taken place in every case of simple inflammatory phthisis that I have placed upon this course of treatment.

In cases involving a tubercular, scrofulous or syphilitic family history, the results are very much more uncertain and unsatisfactory, as regards anything more than temporary relief or improvement.

In tuberculosis, advanced to the stage of softening, I do not think any benefit could be expected from the use of compressed or rarefied air, but, on the contrary, I should fear the occurrence of hæmorrhage from its use, as sometimes happens when patients, so far advanced in tuberculosis, go into too rarefied a mountain atmosphere.

In a number of cases of chronic bronchitis, the use of the compressed and rarefied air has relieved the immediate symptoms of cough and dispnœa very promptly. Whether its continued and persevering use would finally overcome the sensitiveness and chronic congestion of the mucous lining of the air-passages, so as to effect a permanent cure, remains yet to be proved, as regards my own experience.

The German writers upon the subject claim that it does so effect a permanent cure, and theoretically its effects upon the capillary circulation of these mucous membranes ought to diminish chronic congestion and thickening.

For emphysema the expiration into rarefied air, is also claimed to be a means of radical cure. In this class of cases, or in valvular diseases of the heart, I have not as yet had an opportunity of testing satisfactorily its effects.

THE MAJOR AMPUTATIONS IN THE COOK COUNTY HOSPITAL DURING THE ELEVEN YEARS ENDING DECEMBER, 1875.

By C. T. Fenn, M. D., Chicago.

In the latter part of December, 1876, the old County Hospital, occupied since January, 1866, was vacated, and the patients were removed to the new hospital. This departure from filth and miasma to cleanliness and wholesome surroundings, inaugurates a new period in the history of the County Hospital; and all statistical reports, which in the future may be collected from the records of the hospital, must always bear in mind the difference of the sanitary conditions during the first and second period. In view of these facts, we prepared the following list of all the major amputations performed in the old hospital from 1866 to 1876.

The table does not include amputations of the hand and foot, or disarticulations of the wrist and the ankle joints.

Primary amputations are those which were done within the first forty-eight hours succeeding the injury.

Intermediate amputations are those which were performed between the third and thirtieth days.

Secondary amputations are those which were done after the thirtieth day.

Pathological amputations are those which were undertaken for the cure of disease.

CAUSES LEADING TO AMPUTATION.

There were fourteen amputations for ill-conditioned stumps; one in the upper extremity; thirteen in the lower extremity. All were, more or less, remote from the seat of original operation: one being at the hip-joint for malignant disease of leg-stump; one in the middle third of the thigh for secondary

TABLE OF MAJOR AMPUTATIONS IN THE COOK COUNTY HOSPITAL, FROM 1866 TO 1876.

	PRIMARY.			INTERMEDIATE.			SECONDARY.			PATHOLOGICAL.			NOT CLASSIFIED.			TOTAL.		
	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.	Cases.	Deaths.	Per Cent.
ARM.																		
Shoulder joint	7	4														7	4	
Upper third	9	2		1						2						12	2	
Middle third	1						1			1						3		
Lower third	5			3			1			3	1					12	1	
Seat not recorded	4												1			5		
In all	26	6	23.07	4			2			6	1.		1			39	7	17.94
FOREARM.																		
Elbow joint	1															1		
Upper third	4	2														4	2	
Middle third	1									1						2		
Lower third	3			2	1		1									6	1	
Seat not recorded	1															1		
In all	10	2	20.00	2	1		1			1						14	3	21.42
THIGH.																		
Hip joint										3						3		
Upper third							1									1		
Middle third	7	3		1						1						9	3	
Lower third	11	6		2						14	3					27	9	
Seat not recorded.	1			1						1			1			4		
In all	19	9	47.36	4			1			19	3	15.78	1			44	12	27.27
LEG.																		
Knee joint	3	1					1			4						8	1	
Upper third	13	4		5	2		8	2		6	1					32	9	
Middle Third	4			4	1					2	1					10	2	
Lower third	3			9	4		6	2		9	1					27	7	
Seat not recorded.	5			2						1			2			10		
In all	28	5	17.85	20	7	35.00	15	4	26.66	22	3	13 63	2			87	19	21.83
SUMMARY.																		
Upper extremity.	36	8	22.22	6	1	16.66	3			7	1	14.28	1			53	10	18.86
Lower extremity.	47	14	29.78	24	7	29.16	18	5	27.77	39	5	12.82	3			131	31	23.66
In all	83	22	26.50	30	8	26.66	21	5	23.80	46	6	13.04	4			184	41	22.28

hemorrhage from leg-stump; six in the upper third of the leg, two of which were for ulcerated foot-stumps; one for gangrene of foot-stump and leg; and three for ulcerated leg-stump. One of the latter resulted in death, and one in a second re-amputation above the knee. Five in the lower third of the leg for unhealed leg-stumps, two, double, resulted in death; one in a second reamputation. One in the leg, seat not designated. One of the arm for inflammation of fore-arm-stump.

Mortality after re-amputations $21\frac{4}{100}$ per cent.

There were eight amputations for ulcers, all in the lower extremity.

There were eight amputations for malignant diseases. Three in the upper extremity; five in the lower extremity.

There were ten amputations for frost-bite. One in the upper extremity, and nine in the lower extremity.

There were twenty-seven amputations for caries. Two in the upper extremity, and twenty-five in the lower extremity. Twenty-five of these cases involved the joints; one the wrist, one the elbow, nine the ankle, twelve the knee, and two the hip. Of the nine cases of caries of the ankle-joint, one died; of the twelve cases of caries of the knee, two died.

There were one hundred amputations for injuries. Forty were in the upper extremity; sixty were in the lower extremity.

There were four amputations for gangrene, all in the lower extremity.

There was one amputation for cellular inflammation in the upper extremity.

There was one amputation for atrophy and deformity in the upper extremity of the right side.

There were eleven amputations for causes not stated. Four in the upper extremity, and seven in the lower extremity.

Of fifty-three amputations in the upper extremity, seventeen were of the right, twenty of the left, and sixteen not referred to either side.

Of one hundred and thirty-one amputations in the lower extremity, forty-nine were of the right, forty-two of the left, and forty not referred to either side.

Of the forty-one amputations whose result was fatal, ten were in the upper extremity ; thirty-one were in the lower extremity.

DEATHS.

Of the thirty-nine deaths which occurred, nine had for their immediate cause shock or collapse ; four on the first and five on the second day. Nine deaths were put down as due to exhaustion; five within the first five days, three between the fifth and the tenth days—one being in consequence of a double re-amputation of the legs on an old man 75 years of age—and one on the fourteenth day. Seven deaths were caused by septicæmia, one in consequence of a double amputation of the legs on the fourth day, the others on the sixth, eleventh, fifteenth, eighteenth, twenty-first and seventy-first days respectively. Fourteen were due to pyaemia, occurring respectively on the third, seventh, ninth, tenth, fourteenth, fifteenth, twenty-first, twenty-fifth, thirtieth, thirty-first, thirty-fifth, fifty-ninth and sixty-fourth days.

AN ANALYSIS OF FIVE HUNDRED CASES OF SKIN DISEASES.

By W. J. Maynard, M. D., Chicago.

(Condensed from a Report on Dermatology, to the Chicago Medical Society, May 21st.)

In the past too little attention has been paid by the teachers of medicine to the subject of Dermatology. I was once told, that in treating cutaneous diseases, it was only necessary to remember that, "Skin diseases could be divided into two classes, specific and non-specific. For all non-specific cases give arsenic for a cure, and for all those that have a specific origin, give iodide of potassium." If so concise and brilliant a manner of inviting attention to this large field of practical medicine is generally adopted in the teachings of others, it is

not at all strange that this subject is so much neglected, and a large majority of college graduates kept in profound ignorance of a department of medicine, that they, at least, should have a general idea of. This work, however, has been pushed on more vigorously, and thanks to those who have labored the most industriously in this field, we find that in a few years rapid advancement has been made towards greater perfection; and while we find to-day that dermatology is in a very flourishing condition, yet from the increased attention paid to it in every direction, we must expect much more brilliant results in the future, and truths promulgated that will not be merely the results of empirical teaching, but rather those that emanate from thorough investigation and scientific pathological research.

In a report to the State Medical Society of Kentucky, Dr. Yandell makes, as a basis of his report, that chronic skin diseases have their origin in the strumous diathesis, while acute diseases have a malarial origin. He says, also, that struma may give evidence of its active existence at birth, or remain many years latent in the system; bad hygienic surroundings, depraved habits, exposure to changes of temperature, bodily injuries, and acquired diseases, are the most usual excitants of its development into activity. Malaria is a subject on which there is a wide range of opinion, and concerning which but little is definitely known, whether it arises from the emanations of living or decaying plants, or has its origin in microscopic vegetable organisms, or due to certain changes in the constituent elements of the atmosphere, or is chargeable to the excess or deficiency, or change, of some normal constituent of the blood, he cannot discuss, but holds that it is a prolific source of skin disease. Whether or not there is a malarial diathesis, as has been suggested, there is such a thing as latent malaria, and this, like struma, can be germinated, incubated, ignited or crystallized by changes of temperature, dentition, physical injuries, improper, excessive, or insufficient food.

To these, also, we would add the syphilitic diathesis as a very active agent in the production of these lesions; and while we cannot go as far as he and assert that skin diseases have

their direct origin in certain diathesis, yet we would rather regard them as part or modifying causes, and as long as they exist have a tendency to perpetuate or intensify the existing disease.

The more experience we have in the treatment of these maladies, the more we are convinced that such conditions do lie in the back-ground, particularly in young life, and without the aid of remedies that are directed to these peculiar conditions, we find that chronic skin-diseases are exceedingly obstinate, if not incurable. Thus, in the treatment of cutaneous disorders, must we be very thorough in searching for the cause of disease, and although we see many that have simply a local origin, a large majority that come under our observation have their origin from within the body, and while it is very essential that we should direct our attention closely to the local manifestations, yet for the permanent cure of the disease, we must remove that cause, whether this be due to some organic disease of internal organs, to mal-nutrition, to blood alterations, from bad assimilations, or due to degenerative tissue changes. Thus Piffard, in speaking of the rheumides (in this class he puts eczema, psoriasis, pityriasis, etc.) says, "it may be formally stated that the affections pertaining to this diathesis are all probably due to an accumulation in the blood of an excess of certain excrementitious substances, and presumably those that are efficient in the causation of gout and rheumatism; the blood is subalkaline, that is, deficient in alkalies. The accumulation in the blood of these excreta is due to either deficient kidney action, or these substances are produced in excess. This excess is due either to over-supply of albuminoid food, the surplus not being thoroughly oxidized, or there is a failure on the part of the oxidizing processes to fully complete the changes. Murchison says, "there are strong reasons to believe that the liver is the organ more particularly at fault in this connection. The principal indications then to be filled are, to depurate the blood by calling into action the kidneys, bowels and skin, and promoting oxidation by taking away excessive amount of meat, if this condition is due to incomplete oxidation of an excessive amount of albuminoid

ingesta. Increase oxidation also by preparations of iron, chlorate of potash, etc., stir up the liver, encourage out-door exercise, good ventilation, bathing, and diet."

These conclusions, although of the utmost importance in treatment, cannot now be further spoken of, for the reason that the main object that I have in view in presenting this article is to give, in as brief a manner as possible, an analysis of 500 cases of skin diseases that I have met with during the last two years (the exact number is 547), and wish to invite attention to some practical methods of treatment that experience has shown to be of value in these disorders. It is simply impossible in dispensary practice to carry out a thorough line of treatment, on account of the ignorance and carelessness of the patients and their manner of living, and then, too, many not being able to leave their daily employment, are irregular in their attendance, and negligent in obeying instructions, and by these means prolong a disease that might have been of short duration. However, in spite of all this, I have seen the most gratifying results in treatment, and in the management of these cases I claim nothing that is particularly original, but, rather, have followed the teachings of the more modern school of dermatology. This analysis shows that eczema stands first in point of frequency, occurring 158 times in the 547 cases. By comparison, I find that this ratio is about the same as that given by other observers. In the management of these cases of eczema I always first look for a cause, and in most instances find that debility, over-work, stomach derangements, and local irritation lie at the root of the trouble, and endeavor as soon as possible to do away with these conditions. Then, in some we find we have to do with gout, rheumatism, and deficient kidney action, and in young life we have hereditary and diathetic influences. Thus, the causes being multiple, it follows that each case must have its own peculiar treatment, while the local treatment must vary according to the particular stages of the disease. Thus, in the more acute stages, where the exudation is great, I rely upon the absorbent powders, as oxide of zinc and starch, equal parts, to which a little camphor may be added; another has been used with benefit, as liquor plumbi

subacetatis ʒij, tinct. opii ʒiv, to twelve or sixteen ounces of water. In the subacute stage, where the exudation has in a great measure ceased, and where there may be slight scaliness, I prefer the ointments, as the benzoated oxide of zinc, or what answers better in my hands, a mild mercurial, as the ammonio-chloride five to ten grains to the ounce. Where there is no discharge, but dry patches with more or less infiltration, I rely upon tarry preparations, as oil of cade ʒij to the ounce, or the strong alkalies, as green soap, either alone or mixed with alcohol, or what can be used in its place with good results caustic potash two grains to ℥ss to an oz. f. In private practice I rarely use lard as an excipient, for the reason that it soon becomes rancid and does harm. In its place I usually prescribe cosmoline, vaseline, or rose ointment. In eczema of the head in children, I always direct that the thick crusts be at first removed by a poultice, and then do not allow them to use it again, or wash the head, but prevent the re-accumulation of scales by soaking the head in cod liver oil, afterwards using a mercurial or tarry ointment according to the conditions present, the head at the same time covered with an oil-silk cap. Cod liver oil also is freely given internally, either with or without the syrup of the iodide of iron.

The next in order of frequency come the syphilodermata, ninety-four in number. In these cases all primary and secondary forms of the disease were treated with preparations of mercury, the most effective of which was the bichloride. In all later forms of the secondary stages, the best results were obtained from the so-called mixed treatment, that is a combination of mercury with iodide of potassium.

One of the most obstinate and unsatisfactory diseases that we we are called upon to treat is acne. Thirty-one cases are recorded. Although this is generally regarded as a disorder of adolescence, yet I have seen it frequently in those who were beyond this period of life, and think that in a majority of my cases there was associated more or less stomach derangements, and constipation, and uterine troubles. These causes were removed as far as possible, and at the same time the patients were directed to bathe the face night and morning in hot water, and apply

lotions to the parts. If I have to deal with the tuberculous variety, I generally use sulphur in some form, as the iodide of sulphur ointment, or, what is better still, equal parts of sulphur, alcohol, glycerine, and water. I have used in some cases, with much benefit, a lotion of borax, bichloride of mercury, glycerine, and water. Where these failed to do good, good results have been obtained from a lotion of sulphate of potash, sulph. zinc, glycerine, and water. In acne rosacea caustics are necessary. Neumann extols one part of carbolic acid to three or four of alcohol.

In this list are found thirty-seven cases of psoriasis. Great care is sometimes necessary to distinguish the non-syphilitic from those of a syphilitic origin in this class, for the reason that the usual diagnostic marks and a syphilitic history are sometimes absent. In acute cases of psoriasis I am in the habit of giving alkaline diuretics freely. A large majority of these cases were chronic, and were treated with carbolic acid internally in four drop doses gradually increased. Some of these patients made better progress with a combination of carbolic acid and arsenic. Locally, the parts were rubbed with mercurial, tarry, or alkaline ointments, according to the case. I have a patient under my care at the present time who has had the disease for twenty-four years, and for the first time is improving rapidly under a treatment of carbolic acid and Fowler's solution of arsenic, with frictions of green soap and alkaline baths. In a recent number of the London Lancet, Dr. Cuttle recommends very highly in psoriasis, a solution of India rubber which he paints over the affected patches, after having removed the scales, renewing the operation from time to time in order to maintain an impervious coating. He cites fifty cases treated in this manner, and with great success. This is really a modification of the plan adopted and extolled by Hebra on the continent, and McCall Anderson, of Glasgow, and I mention it in this connection, for it is really an improvement, inasmuch as it is much less expensive, and fills the same indications.

There were fifty-one cases due to the animal parasites; thirty-nine of these were from pediculi, and are called phthiriasis.

It is not at all necessary, in a disease of this kind, to search the clothes for the offending parasite, as the hæmorrhagic mark that it leaves upon the skin is quite characteristic, and when discovered is absolutely diagnostic. All that is necessary in treatment is to thoroughly bake the clothes and apply ammonio-chloride of mercury ointment to the skin. Twelve of these were due to the acarus scabiei, and were all treated locally with sulphur ointment, or what I found a more speedy method of cure was an ointment of sulphur 3ss, grs. v. of the white precipitate with five to six drops of carbolic acid to the oz.

Twenty-five cases of urticaria recorded were mostly chronic, and were treated locally by alkaline and sedative lotions, and by removing the cause wherever it could possibly be found. There were found twenty-three diseases due to the vegetable parasites, comprising nearly all of the different varieties, of which there were ten cases of tinea circinata, three of tinea tonsurans, six of tinea versicolor, four of tinea sycosis. Recognizing the fact that the disease depended chiefly upon local irritation, the treatment in these cases was entirely local, and consisted either in white or red precipitate ointments, lotions of the bichloride of mercury, or a strong solution of borax. A great deal has been said lately in the journals of the influence of goa powder over these diseases, and as a parasiticide is said to be more certain in its action than anything yet known. This goa powder is a vegetable substance, and is the product of some unknown plant. It comes from Brazil, where it is known as araroba. Its chief active properties are supposed to be due to chrysophanic acid.

There were twenty-two cases of herpes. Among this number are found all the different varieties, with the exception of herpes iris. which I never have seen. Among my eighteen cases of erythema were found all the different varieties of this disease, and in nearly all there was more or less disturbance of the digestive functions. One case of erythema nodosum was easily cured by quinine, where other remedies had failed to do good.

There were seventeen cases of impetigo, six of which were of the so-called impetigo contagiosa. In these diseases tonics

and cod-liver oil are always indicated, with removal of the scabs, and topical application of glycero-tannin, or a mild mercurial ointment. Eighteen cases of pruritus are recorded in different parts of the body, and depending upon different causes, which in most cases must be removed before the trouble will cease.

There are recorded in this list three cases of purpura; very little is known as yet in regard to the true pathological condition present in this disease, and consequently the treatment has generally been unsatisfactory. My first case was treated by astringents, as almost universally recommended by the books, as solutio ferri persulph., turpentine, etc., but without the least success. My failure in this case induced me, in the next two, to resort to ergot, and obtained the very best results, both cases that had been existing for some time, yielded very easily to its influence. I used the fl. ext. in teaspoonful doses three times a day. The decided power it has over the involuntary muscular fibres, and the manner in which it arrests hæmorrhage in other affections will account for its speedy action in these cutaneous hæmorrhages.

Eight cases of lichen are recorded, of which six were of the simple variety, two of lichen pilaris, and one answered well to that form of disease the lichen ruber of Hebra. They were all treated by sedative lotions and tonics.

Thus briefly have we selected a few of the more prevalent forms of the recorded five hundred cases, and have given a general idea of their management. The remainder of the list comprises three forms of skin diseases that we occassionally meet with, and as their history may not be particularly intresting to all, I will not allude to them further than to mention that there are eight cases of lupus recorded, five cases of pityriasis, and three of ecthyma. Seborrhœa occurred four times, and erysipelas three; four cases of eczema marginatum. There are two cases of ichthyosis and two of chloasma. One case of that rare form of disease prurigo; only one of pemphigus, and one of hydroa. Alopecia areata was seen only once, and likewise keloid, xerodema, and elephantiasis arabum.

A COMPARISON OF THE MORTUARY STATISTICS OF SAN FRANCISCO, CHICAGO, CINCINNATI, PHILADELPHIA, CHARLESTON, BOSTON, ST. LOUIS, RICHMOND, BALTIMORE, NEW ORLEANS, NEW YORK AND LOWELL, MASS.

By E. Fletcher Ingals, M. D.

From this table we find that the greatest proportion of deaths from phthisis occurs in Lowell, Mass. Next follow Boston and San Francisco at fifteen per cent.; several cities at 11.68 to 14.42 per cent; St. Louis 8.6, and Chicago 7.6 per cent. In these same cities the per centage of deaths from acute pulmonary affection, classed as pneumonia, congestion of the lungs, and bronchitis, is as follows:

Chicago, 7.8 per cent.; St. Louis, 8.3; Charleston, 6.55; New Orleans, 6.22; Cincinnati, 8.9; Philadelphia, 9.17; Richmond, 7.13; Baltimore, 5.85; Boston, 10.49, and San Francisco 8.4 per cent. While these statistics are not absolute proof of the advantages for those predisposed to pulmonary disease, to be derived from a residence in any one of these cities, they show that the dangers to the community from phthisis are much less in Chicago and St. Louis than in the other cities. Grouping together those cities in which the mortality from phthisis is greatest, we find that, with one exception, they are located on or near the sea shore; while those in which it is least are inland. We have not the statistics from Buffalo, but from a table, which is in our possession, we find that the per centage of deaths in that city from consumption is a little lower than in any other city in the United States. From this, it appears that phthisis is more common on the sea coast than inland, and that proximity to a large inland lake, instead of increasing the mortality from this

	Years	Total Mortality	Deaths from Phthisis and Hæmoptysis	Percentage of Total Mortality	Deaths from Pneumonia, Bronchitis, and Congestion of the Lungs	Percentage of Total Mortality	Deaths from Diseases of the Heart	Percentage of Total Mortality	Deaths from Rheumatism	Percentage of Total Mortality	Deaths from Aneurisms.	Percentage of Total Mortality	Deaths from Typhoid and Typho-Malarial Fevers.	Percentage of Total Mortality	Deaths from Cholera Infantum, Cholera Morbus Enteritis, Entero-Colitis, Diarrhœa and Dysentery	Percentage of Total Mortality	Deaths from Cholera, Diphtheria, Scarlatina, Cerebro-Spinal Meningitis, and Variola	Percentage of Total Mortality
*San Francisco	1872-'73, '74 & '75.	13897	2087	15.	1171	8.4	625	4.5	35	.25	167	1.2	412	2.96	888	6.39	866	6.23
Chicago	1872-'73, '74 & '75.	35637	2727	7.6	2790	7.6	641	1.8	96	.27	22	.06	1214	3.40	6618	18.57	2810	7.65
Cincinnati	1872-'73, '74 & '75.	21482	2638	12 28	1912	8.9	533	2.48	53	.24	15	.06	514	2.39	1968	9.16	3456	16.08
Philadelphia	1872-'73, '74 & '75.	67254	9491	14.11	6173	9.17	2438	3.62	173	.25	72	.10	1678	2.49	6929	10.3	6074	9.03
Charleston, S. C.	1871-'73, & '75	5950	590	11.68	331	6.55	144	2.8	12	.23	6	.11	103	2.03	374	7.40	236	4.67
Boston	1872-'73, '74 & '75.	33597	5015	15.01	3325	10.49	1104	3.46	165	.49	18	.05	810	2.41	4156	12.37	3521	10.48
St. Louis	1872-'73, '74 & '75.	21136	2078	8.6	2004	8.3	267	1.1	49	.19	8	.03	447	1.85	3343	13.85	4384	18.16
Richmond	1873 & 1874.....	3628	513	14.14	259	7.13	122	3.36	5	.13	1	.01	125	3.44	478	13.17	.....	.....
Baltimore	1873-'74 & '75.....	22605	3261	14.42	1323	5.85	598	2.64	160	.69	10	.04	660	2.94	2790	12.34	1937	8.56
New Orleans	1873-'74 & 75	20120	2506	12.27	1271	6.22	617	3.02	27	.13	20	.09	236	1.15	2299	11.25	1905	9.32
New York	1874 & '75.....	59136	8206	13.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	four years	13.75	.....	.....
Lowell, Mass	1874 & '75.....	2201	397	18.03	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

* The Chinese are excluded from the statistics of San Francisco.
* Rubeola was omitted from this list accidentally. There were very few deaths from cholera in any of the cities of this list for any of these years.

disease, seems to lessen it, as shown by comparing the statistics from Buffalo and Chicago with those of St. Louis.

If we find the per centage of deaths from phthisis, to the total mortality, less the number of deaths produced by the principal enteric and zymotic disorders, we obtain the following results:

San Francisco, 17.18 per cent.; Chicago, 10.44 per cent.; Cincinnati, 16.42; Philadelphia, 17.49; Charleston, 13.28; Boston, 19.42; St. Louis, 12.66; Baltimore, 18.24; New Orleans, 15.45. Though the ratio is changed by this computation, still the general results remain the same. As there is only one condition common to San Francisco, Boston, Philadelphia, New Orleans and Baltimore, we have much reason for suspecting that residence near the sea shore is prejudicial to phthisical patients. Yet we cannot set this down as a rule unless we make an exception of Cincinnati. The large mortality from phthisis in San Francisco has been explained by the statement that many consumptives go there to die. This is doubtless true to a certain extent, but it is also true that those who settle new countries are usually uncommonly vigorous persons, or, in other words, those who are least likely to die of phthisis; still this explanation may be in part correct, for we find that before the completion of the railroad, viz., in '66 and '67 the per centage of deaths from consumption and hæmoptysis was only 13.99, whereas for the years '72, '73, '74 and '75 it was 15 per cent. However we cannot place much stress upon this explanation, for it is doubtless true that of the consumptives who leave the older States for the Pacific Coast, in pursuit of health, very few remain in San Francisco, because the ocean winds that daily come in through the Golden Gate drive them south, or inland, to more sheltered places.

As we would naturally suppose, acute pulmonary affections are shown to be less frequent in southern than in northern cities. We observe that in those cities where the per centage of deaths from phthisis is greatest, the per centage of deaths from diseases of the heart is also large, and the ratio remains much the same after deducting the principal enteric and zymotic causes of death. This disfavors the old idea that

phthisis, and diseases of the heart are antagonistic; or, at least, it suggests that in some cases they may possibly result from similar causes.

In San Francisco heart diseases cause 4.5 per cent. of the total mortality, while the average mortality in all the other cities from these affections is only 2.79 per cent. This brings us to the most singular fact revealed by this table; viz., the surprising prevalence of aneurisms in California. The mortality from this cause alone in San Francisco amounts to *one hundred and twenty* in every ten thousand deaths; while in all the other cities of this list it is only *nine* in every ten thousand. The principal causes predisposing to aneurisms are said to be 1st. fatty degeneration of the arterial coats; 2d. age (after puberty); 3d. forcible, irregular and occasionally greatly increased action of the heart; 4th. climate; 5th. cachexy, and 6th. obstacles to the free flow of blood through the arteries or capillaries. Of these causes, the second, age, and fifth, cachexy, can have no more to do with the production of aneurisms in San Francisco than in any other city. The first, fatty degeneration, would seem to be equally impotent. The sixth, obstacles to the flow of blood, possibly has some significance, for it may be that all the inhabitants of California are more accustomed to the abuse of alcoholics than those of other portions of the United States, and that as a consequence they are more liable to diseases of the liver and kidneys, which, by causing contraction of the capillaries, lead directly to cardiac disease and dilation of the larger arteries. However we are unwilling to believe that the people of San Francisco are more intemperate than those of many other cities.

The fourth cause enumerated would not favor the production of aneurisms in San Francisco, for it has not a cold climate. It has been stated that aneurisms are more common in Great Britain and Ireland than elsewhere; that they are common in the United States, less common in France and Germany, and rare in the East Indies. This difference Mr. Erichsen attributes to the effects of temperature; but perhaps it might with greater propriety be attributed to the use of alco-

hol. Certainly, we never in any other place witnessed so much inebriety as in Great Britain. Wines are used freely on the continent of Europe, but we are of the impression that drunkenness is less common there than in our own country.

The third cause enumerated, forcible, irregular, and often excessive action of the heart, is doubtless a potent agent in swelling the per centage of deaths from aneurisms in San Francisco. Probably in no other city in the Union, if in the world, is the excitement of business so great. The mania for speculation, which seems to have fallen upon nearly every man, woman and child in the Golden City, together with the great and almost daily fluctuations in mining and other stocks, must keep the community in a state of excitement which cannot fail to affect the circulatory organs of susceptible individuals. The relaxation of the muscular system, which every one has observed as incidental to sudden changes from a low to a high temperature, may possibly have some influence in the production of aneurisms, and the sudden change from a high to a low temperature, which takes place nearly every summer's day in San Francisco, must cause contraction of the superficial capillaries with obstruction to the flow of blood through them and consequently increased pressure in the larger arteries.

Richmond suffered most from typhoid and typho-malarial fevers, which caused in that city, 3.44 per cent. of its total mortality.

St. Louis suffered most from the principal zymotic disorders which caused 18.16 per cent. of its total mortality. Next to St. Louis in this category, comes Cincinnati, where the per centage was 16.08. Charleston, S. C., suffered least from this class of diseases; viz., 4.67 per cent. From the principal enteric disorders Chicago loses most; viz., 18.57 per cent., and San Francisco least, 6.39. St. Louis loses 13.85 per cent.; New York, 13.75; Richmond 13.17; New Orleans 11.25; Boston, 12.37; Cincinnati, 9.16; Charleston 7.40. This is a matter of special interest to us. Of the 6,618 deaths which occurred in this city during the last four years, 4,969 were from cholera infantum alone. If we could prevent this one disease, or the various affections which are reported under

this name, and which whether actually cholera infantum or not, doubtless depend upon similar causes; Chicago would be the healthiest city in the United States. The most influential causes in the production of cholera infantum, are, first, continuous heat for several days at 85°, 95° F; second, unwholesome diet, especially immature or decaying vegetables, and impure milk; and third, those well recognized causes which favor the production, or foster the continuation of epidemic cholera.

Probably there is not a city in this list where the average summer temperature is lower than in Chicago, unless it be San Francisco, and there is certainly not one where wholesome food is cheaper and more abundant. We presume the milk which is supplied to our inhabitants is as pure as that used in other large cities. Therefore, we think neither temperature nor diet can account for the great mortality in this city from cholera infantum.

Authors agree that the most potent causes of this disease are the same as those which favor the production, or continuance and propagation, of epidemic cholera. First and foremost among these are animal poisons arising from the decomposition of organic matter in and about slaughtering houses, glue factories, rendering establishments, &c. Among other causes, are bad drainage, obstructed sewers, neglected privies, overcrowded tenements, and poor ventilation. The latter of these causes cannot be especially operative in Chicago, and probably they are even less active here than in most other cities on this list; for Chicago is built on a broad prairie over which the wind sweeps without obstruction, its inhabitants are not crowded, and they have an inexhaustible supply of pure water. The drainage here may be defective, still it is much better than in New Orleans, where the per centage of deaths from these diseases is only 11.25, and it is doubtless as good as in Charleston, where the percentage is only 7.40. We do not think our large mortality from enteric affections can be due to poor drainage. In St. Louis where the drainage is very perfect, the percentage of deaths from these causes is larger than in New Orleans. The first and most potent cause of cholera

infantum and kindred diseases; viz., decomposing organic matter, seems to be the one from which we suffer most, and there seems no opportunity for doubting that we could greatly lessen the mortality from this affection by removing the causes of that noisome stench, which during the warm months, comes up from Brigdeport and the North Branch, and spreads like a putrescent pall all over the entire city.

Summarising the results of this analysis, we have the following conclusions, which, although they cannot be set down as established facts, still bear the stamp of strong possibilities.

1st. Residence by the sea-shore is prejudicial to phthisical patients.

2d. There is something peculiar to the climate of San Francisco, or to the business and social relations of its inhabitants, which strongly predisposes to aneurisms.

3d. A large percentage of the mortality in Chicago is the direct result of organic poisons emanating from the slaughter-houses, glue factories and rendering establishments of Bridgeport, and the foul water in the North Branch.

HEMIOPIA.

By Wm. Dickinson, M.D., St. Louis, Mo.

Hemiopia is comparatively a rare affection: it is not a disease; it is but a symptom of disease. This term signifies half-vision; that is, vision with only one-half of the eye, the other half being insensible to visual impressions; implying that condition of the rods and cones, or of the optic nerve-fibres of the retina, or of the optic-nerve itself, or of the optic tract, in which only one-half of these several portions is capable of receiving or transmitting visual impressions to their destination where they are converted into perceptions. The lesion determining this condition may exist in one eye

only, or in both; generally, however, the *right* or the *left half* of all objects is the portion unseen; the upper or the lower halves may be thus affected, though rarely. Again, the temporal half of each retina may be the portion insensible. According to the generally received doctrine of the semi-decussation (of which there are grave doubts) of the optic nerves, this phenomenon is to be explained by lesion of those fibres which do not cross at the chiasma. In such cases the impairment of vision is often very rapid, the sight being utterly destroyed within a few days. Usually, however, both eyes are symmetrically affected, the right-half of each retina, or the left-half of each retina, being involved. In such cases the hemiopia is termed equilateral or homonymous. This condition may exist alone, uncomplicated with any other affection; it is then transient and induced by reflex action, the result of the perverted function of some remote organ. It is often found associated with hemiplegia; then it becomes an infallible index of a disease, which even now sapping, will, unless arrested, ultimately destroy the citadel of life.

Hemiopia sometimes supervenes slowly, and is then due to softening of portions of the brain; but more frequently it is sudden in its invasion and is dependent upon hemorrhagic or serous effusion. If this is in small quantity and speedily absorbed, the affection will soon disappear; if it be of functional or reflex origin, it will subside with the disappearance of the cause. These recurrences and intermissions, in long series, may characterize its visitations.

Dr. Wollaston, who, in the year 1824, directed attention to this affection by his paper on the semi-decussation of the optic nerves, himself suffered two attacks of this affection, and has left on record his experiences. The second attack recurred after an interval of twenty years; but the effects, *apparently* to him, entirely disappeared after fifteen or twenty minutes. In the first attack the left half of all objects appeared dark; and in the second attack, the right half. The first attack he attributed to violent exercise which he had taken two hours before. He states, he suddenly found he could see but one-half the face of a man whom he met; and it was the same

with respect to every object looked at. For instance, in attempting to read the name, Johnson, over a door he saw only *son*, the commencement of the name being wholly obliterated from his view. The second attack was without any assignable cause. Judging from the narrative whence this extract is taken, it is evident the Doctor had but an imperfect appreciation of the real cause of his hemiopia. For having died four years later, an examination of his brain revealed a condition of which probably he had no suspicion. The right thalamus was of unusually large size, and little or no vestige of its natural substance was perceptible. It had been converted into a tumor, harder than the brain itself, somewhat of a caseous substance towards the circumference, and in the centre of a brown color, soft and in a half-dissolved state. The right optic-nerve, where it passes on the outside of the optic thalamus, was also of a brown color, more expanded and softer than natural.

In harmony with the theory of the semi-decussation of the optic nerves, is the description of these nerves given by "Wilson" in his Anatomy, to which reference may be made.

With this introduction we pass to the narrative of the case by which it was suggested.

S. R. is a man of about forty years of age, of temperate habits, light complexion, hair and eyes; of medium height, and weight about 160 pounds; his vocation that of a merchant, and for several years has closely devoted himself to business often to a late hour of the night. He states that scrofula is a hereditary peculiarity of his family, and that his father died suddenly while at church, at the age of sixty-two years. He confesses himself to have been the subject of syphilis twenty years since, but was then cured and no evidence of the disease has since recurred. In July, of '73, during a period of good health, though the subject of frequent headaches, while engaged in the ordinary routine of business at the store, he suddenly experienced a partial loss of motion and sensation of his left side and extremities (partial hemiplegia) without apparent cause of any kind. From this attack he recovered in the course of a week or ten days, and resumed

his business. During the succeeding three years he was exempt from any recurrence of a similar character. During July, of '76, though consciously ill, he yet attended to business as usual, which was not necessarily confining or requiring much mental effort. One morning, while walking to his store, less than one-half mile distant, he experienced a sensation of numbness of the left side, involving face, arm, body and leg—losing the use of the latter to such a degree as to induce him to sit down. After a little time he so far recovered as to be able to reach the store; but after two or three hours he went home in a carriage. During this attack he observed some formication in the extremities, but no pricking sensations and no distortion of the face or mouth. He has never noticed any differences in temperature of his two sides; never lost entire control of use of left arm, hand or leg, though they were perceptibly weaker than those of the other side. His gait, at times, was a little unsteady and often to such degree as to require him to sit. He has never suffered from constipation, never had a fall or received a blow upon his head. His hearing during the past year has diminished in a slight degree, though yet good.

His medical adviser prescribed appropriate remedies, and recommended a period of travel for respite from business and for recreation. This advice was adopted and much benefit received. About Sept. 20th, he first observed he was unable to see distinctly objects on the left side of the median line. This inability has since much increased. He has also observed some confusion of ideas and some difficulty in concentrating his mind. He has also perceived some difficulty in articulating distinctly. His wife has noticed occasional twitching of of the eye and an obvious change in his manner and general deportment—a peculiarity also observed by his friends,—and in his disposition a degree of restlessness and irritability; his mental equilibrium being disturbed by circumstances which formerly produced no effect, often quite excited by those of a trivial nature; but of all these latter mental deviations he himself is totally unconscious. He has also experienced a sensation of fullness in his throat, as if it was swollen, but dif-

fering from that condition consequent upon an attack of bronchitis. Respiration is somewhat embarrassed and deglutition also, but the sense of taste is not perceptibly affected. For about a year he has observed that his vision was not quite as acute as formerly. He has, to some extent, used tobacco by smoking, but not intoxicating liquors. Recently his feet have been almost habitually cold, while formerly they were disagreeably warm, amounting to a hot sensation when touched.

Such was the general condition of our patient when he first consulted me. In his manner there was nothing specially observable, save perhaps a semblance of listlessness or of general lassitude; in all other respects he bore the appearance of a man in perfect health. The action and sounds of the heart were normal; but during the past year he has observed that active exertion, or to an unwonted degree has produced a hurried respiration from which he was formerly free. The functions of all the other organs, thoracic and abdominal, are normally performed, and has now perfectly recovered motion and sensation of the left side.

In respect to the condition of his eyes, there was nothing worthy of note excepting the slight amblyopia and the hemiopia. Two objects held before his eyes at fifteen inches distance, are distinctly seen by both eyes; upon fixing vision upon the left (to him) object, and moving the right object to his right, it is seen throughout the normal range; but fixing vision as before, upon the right object, (as presented to him) and removing the left object to his left, for the first three and a half inches it is seen, it then seems to enter a shadow, a penumbra, which appears gradually to increase in density as the object moves, till it entirely disappears. With the ophthalmoscope, all the dioptric media were found transparent, the details of the fundus distinctly seen and clearly defined, and the vessels of normal size and appearance. No glasses seemed to ameliorate the amblyopia.

The ophthalmascope demonstrates that the retina is not at fault. The patient states that only *one half* of objects are unseen, and that this blindness exists on the same side in both eyes. Anatomy, according to the generally accepted (not in-

dubitably proved) theory, informs us that the right optic tract is distributed to, or is in connection with the right half of each eye; *i. e.* the temporal side of the right, and the nasal side of the left eye; and that the left optic tract is in connection with the temporal half of the left and the nasal half of the right retina. Our patient is blind towards his left side, consequently that portion of the retina which should receive the images of external objects from that side is the part affected. The right optic tract is in communication with these portions, therefore this tract is the one involved and incapacitated for transmitting the visual impressions received upon those portions of the retina with which it is in anatomical relation. Pressure is the more probable cause and a pressure that is capable of remission.

Again, our patient has suffered from temporary impairment of sensation and motion in the left side and extremities. Since the decussation of the nerves of sensation and motion takes place in the medulla oblongata, it follows that this paresis is due to some lesion to the right optic thalamus and to the right corpus striatum. This is doubtless in consequence of pressure in which the right optic tract is involved, as in one common cause; and this pressure may be occasioned by a tumor or by a serous or hemorrhagic effusion. If to a tumor, it may be, and to my mind it is, caused by a gummy tumor, a sequence of the specific virus with which he was affected twenty years before, or possibly by a syphilitic node. The symptoms manifested are consistent with this diagnosis, for it is well known that if a cerebral tumor is very slow of development, the brain substance, and also the nerves may accommodate themselves to its growth, and there may only periodically arise such compression of the vessels at the base of the brain, which, setting up disturbance in the intra-cranial circulation, will give rise to ephemeral hemiplegia, ischæmia and fainting or epileptoid fits. But symptoms of paralysis of the cerebral nerves may supervene, if the tumor pervades, irritates or presses upon the nerve substance, or if the vessels become compressed and the nutrition of the nerves impaired.

Hemorrhagic or serous effusions into the third ventricle, or at the origin of the optic nerve, from the optic thalamus may

produce the same effects. One of these effusions *may* have occasioned the phenomena presented by our patient. The cerebral substance adjacent having accommodated itself to the slight pressure produced, or absorption having rapidly taken place, the symptoms presented subsided. Upon these interpretations of the symptoms my treatment was predicated; the removal by absorption of the cause of pressure, whether from a gummy tumor, the consequence of syphilis, from passive effusion, blood or serum from basilar periostitis; from effusion, the product of basilar meningitis or tumor of the pituitary gland.

Hemiopia, as before intimated, *may* also be the result of softening of the brain, occasioned by an atheromatous condition of the basilar arteries. Hemiopia being but a symptom, the treatment must be specially directed to the primary cause, remedial means of a tonic character must be vigorously prosecuted. In this case full doses of pot. iod. were administered alone and in combination with pot. brom., and subsequently hydg. bichl., Turkish baths, and the use of galvanism. Abstinence from the use of alcoholic liquors and of tobacco, also from all sources of excitement incident to the conduct of his business; avoidance of all circumstances calculated to excite passion, anger or resentment; and for the purposes of respite or recreation, recommended a journey to Europe or to California. By these agencies, continued during the period of two months, the area of vision, at *fifteen* inches distant, increased from three and a half inches to sixteen inches, a result highly satisfactory and encouraging.

As regards vision, the prognosis is in all cases extremely unfavorable, for in spite of the best directed efforts, the hemiopic darkening of the field usually progresses in a relatively short time to complete amaurosis. But if the hemiopia on the same side of both eyes is not accompanied by atrophy of the corresponding half of the optic papilla, it is to a certain extent favorable; that is, it is seldom followed by complete blindness, especially when it has existed for some time unchanged. Stellwag states, "It is not uncommon to see a partial or entire clearing up of the darkened portions of the visual field. It is

even observed, although rarely, in tumors of the base of the brain and of the cerebral structures. It is quite frequent in cerebral hemorrhages. Such an amaurosis in the beginning, generally extends over the whole tract of one or both of the roots of the optic nerve, with the absorption and shrinking of the clot, it generally diminishes, and is generally limited to the half of one or both retinæ or less, or may even wholly disappear."

No. 620 Locust St.

COLOCYNTH AND COLOCYNTHIAN REFLECTIONS.

By Dr. James I. Tucker, Chicago.

It is well known that many of the medicaments in common use at the present day, come down to us as a bequest from antiquity. Among these is one of the *Cucurbitaceæ*, namely, the fruit of the *Citrullus Colocynthis*, which was frequently employed medicinally by the ancient Greeks and the Arabians. It is used at present by the physicians of Great Britain and the United States on account of its drastic-hydragogue properties. It is moreover limited to this use, and these properties are so well understood, that we are obliged to observe the utmost caution in its administration, lest it produce violent griping, nay, more, bloody discharges, inflammation and even death.

Colocynth is administered with us only in the form of pills; hence, we find as the only officinal preparations in our pharmacopœia, the powder, or solid extract, which forms a constituent of compound pills, or a mass from which pills may be compounded. By a careful observation of the physiological action of colocynth we discover that it has an affinity for the large bowel especially, though it reflexly, or otherwise, increases the general peristaltic movements. The tincture of colocynth is not found among our preparations, but it has for a long time held an honored place in the German pharmacopœia. How it is used by the Germans I am not well informed;

but the extreme materialistic views of many of the German physicians, lead me to believe that they would not, as a rule be satisfied unless they should see the feculent discharges, as an evidence that they had accomplished something which would endure the most rankly objective therapeutico-optical scrutiny.

In spite of this, I am going to announce a fact, which I am able to fortify by an array of cases that have come under my personal observation. I state without fear of successful controversion, that *colocynth will allay the pain caused by excessive peristaltic action, better than any drug in use, not excepting opium; providing it be used in the proper dose.* I refer to simple, but nevertheless distressing idiopathic pain, so to speak; pain due to excessive stimulation of the nerves engaged in keeping up the harmonious rhythm of the vermicular movement of the bowels. In such cases I employ not the solid extract, but the *tincture;* and I use the tincture in such small quantities that I expect to meet a large amount of incredulity growing out of *a priori* conclusions. But why, pray, if ipecac in minute doses can allay nausea and vomiting, may not colocynth in small doses allay the very griping which, in large doses, it is capable of producing? I use only just so much of the tincture as to render the excipient—generally water—slightly bitter. In teaspoonful doses, repeated *pro re nata*, I have seen the most speedy relief from very violent griping. Now, since therapeutics is the ultimate aim of classical or humanitarian medicine, I hope that much more attention will be paid hereafter to the hitherto unutilized virtues of drugs which have been supposed to have but a very limited applicability. It will be found that our methods of ascertaining the therapeutical possibilities of drugs are lamentably meagre, and without honest original research we bow too willingly to the shrine of suppositious authority. The truly medicinal properties of many of the drugs in common use lie latent, dormant and neglected, ready at any time to grow and bud and blossom, like the germinal principle, which was at last discovered in the wheat-grains found in the Egyptian catacombs. It is the duty of every practitioner to

contribute the results of his experience to the common store of knowledge; not, indeed, to tell us what misery he can occasion by doses of this or that, but how far this or that has contributed, by a careful artistic application to alleviate the sufferings of mankind. The basis of observation has been hitherto very inadequate; but the time is coming, nay, is already here, when the action of drugs may be ascertained with mathematical accuracy. I mean by the neurological method of therapeutics. To this fact, and to the other virtues of the bitter cucumber, which are an illustration of this fact, I now endeavor to call the attention of the medical profession. *Therapeutics, resting on a neurological basis, is to be the therapeutics of the future.*

Clinical Reports.

COOK COUNTY HOSPITAL.

SERVICE OF DR. H. A. JOHNSON.

[Reported by R. Park, House Physician.]

A Case of Pericarditis Suppurativa.

James Kennedy, Act 45. Admitted June 4th. Patient contracted syphilis twenty-two years ago, but no secondary or tertiary symptoms that he can recall followed. Aside from this he has always enjoyed good health, although addicted to the use of stimulants. Five days ago after a hard day's work he exposed himself to cold while perspiring freely. Soon after he had a chill, followed by fever, sleeplessness; nausea and loss of appetite. The next day he began to cough, and suffered from general malaise. The third day he expectorated a tenacious, white sputum; most of the other symptoms having in the meantime subsided. Since then the cough has been aggravating, expectoration more profuse, and the act of coughing has given considerable pain.

He is large, muscular, well nourished, face flushed, skin hot and dry, pulse 100, temp. 102°, resp. 30. The bowels are

very costive. Physical examination gives the following notes: —chest well formed, expansive movements good, respiration hurried and jerking; percussion resonance good over the entire chest, vocal resonance normal; dry, coarse rales on both sides, best marked in right mammary region and vicinity. No friction sounds; heart sounds muffled and feeble, but normal so far as can be known.

He was given a general tonic and laxative treatment, with an anodyne expectorant.

On the 10th the following note was made: Patient's countenance has a peculiar, wild, staring appearance; tongue lightly coated, pulse 102, face and body bathed in profuse perspiration, bowels as before.

14th. Patient mutters and talks constantly during sleep, which is very much broken. Sweats profusely, circulation very weak. Stimulants were exhibited p. r. n. Without giving the daily notes *verbatim*, the following will show the progress of the case.

17th. Dulness, feeble vocal resonance and very feeble vesicular murmur over lower half of right chest; exaggerated respiration over opposite side.

18th. Above physical signs intensified; patient much prostrated and suffering from dyspnœa.

19th. Considerable bulging of affected side. Pain and dyspnœa aggravated. The usual treatment for alleviating such symptoms instituted.

20th, 3 A. M. Was called suddenly to see patient. Found him with fluttering pulse and suffering from excessive dyspnœa, face cyanosed, breathing short and hurried, anxious countenance, and bathed in cold, clammy perspiration.

Being first satisfied—by trial with the hypodermic syringe—that there was a collection of fluid on the affected side, I introduced the aspirator needle in the axilla in the sixth intercostal space, and withdrew f ℥ lvi. of sanguinolent serum, which coagulated as soon as exposed to the air. This relieved him very much for the time.

11, A. M. Patient slept for a few hours after the above operation, to awake at eight and rapidly sink. At that hour the

respirations were 41, pulse fluttering and irregular, face cyanosed. Powerful stimulants were administered, but with no effect, and he expired at 10:45 A. M.

Autopsy: 24 hours after death. Face still livid; tissues well cushioned with fat. Upon opening the thorax both pleural cavities were found to contain a considerable quantity (O jss each?) of bloody serum; still no small part of the lung was adherent to the thoracic walls, while the right lung adhered to the diaphragm as well as to the thoracic walls,—in places. Further examination seemed to indicate that these adhesions were not of recent origin.

The lungs presented a few scattered patches of pneumonic consolidation, by no means regularly disposed. In the lower left lobe was found an incapsulated caseous mass which creaked under the knife. The pericardial sac with contents was found to present a mass much larger than normal. On nicking it with the knife pus welled out, and upon opening it further exit was given to about a pint of pus. The heart was adherent to it in many places, and many large organized masses were found. Upon removal of the mass and further dissection the pericardium was found adhering to nearly the entire left heart except at the base, where another pocket of pus was found, similar to the one mentioned above, which was much larger and surrounded the right heart.

A dilation of the aorta just at its origin was found, which would have held a hen's egg. The walls of the heart were much thickened, but the valves were in fair condition. The aorta gave evidence of incipient atheromatous change.

The liver bulged up into the right chest. It was large and, upon section, glistened from the amount of fat it contained. It was of a pale, yellowish-red color. The abdomen contained about a quart of serum. Spleen normal. Kidneys showed atrophy of the cortical substance and fatty degeneration, the pyramids standing out well.

Aneurism of Ascending Aorta; Rupture of Left Auricle.

Lizzie Walker (col.), Aet 45. Admitted May 16th. About a year ago patient began to experience a difficulty in breathing, especially at night. Had been employed for some time previously as a laundress, and had frequently "caught cold."

Since that time she has been annoyed—particularly during inclement weather or her menstrual epochs—with dyspnœa. Often at night she is unable to preserve the recumbent posture, being compelled to sit up in order to inflate the lungs. Apart from the above her general health has been good; she has seldom been unable to work.

On admission she is well nourished, of large frame, and apparently in excellent condition, except that she is troubled with great dyspnœa. Physical examination gives the following points: Expiration prolonged, with a wheezy, jerking inspiratory note, and dry or moist rales over entire chest, the dry predominating. Area of cardiac dullness much increased, the apex being an inch to the left of the nipple. There is an irregular rhythm and a combination of sounds—at the same time muffled and indistinct—which it is difficult to satisfactorily explain.

She was given tonics and the ext. grindeliæ robust.

From the date of her admission her condition seemed to improve; though she was always much oppressed for breath at night or in stormy weather. But on the evening of June 6th, while sitting up in bed, some little incident occurred to arouse her temper (none of the sweetest) and she sank suddenly back, and in five minutes was dead; having been insensible during this short interval,—with tongue protruding and pulse fluttering at first but finally quietly subsiding.

Autopsy; 15 hours after death. Dura mater adherent to calvarium; membranes engorged. Considerable serum beneath pia mater. On opening the membranes and sinuses uncoagulated blood flowed freely; and after cutting the cord and removing the brain it continued to flow in such quantity as to show intense engorgement of the meningeal vessels of both brain and cord. Careful examination and section failed to reveal any rupture or hæmorrhage; but there was found a

marked condition of atheromatous change in all the arteries so far as traced.

Upon opening the thorax, the pericardium was found distorted and enormously distended by fluid; section proved this to be semi-solid, half coagulated blood. The lungs and heart were then removed together; the former were engorged with blood, but no evidences of inflammatory action were to be seen. Careful dissection of the pericardial contents showed a marked roughening and thickening of the serous pericardial surfaces, not of recent origin. The whole mass, heart, clots and all, weighed about ℥lv. After turning out the blood and clots, a rupture of the left auricle was found. Following up this lead an aneurism of the commencement of the aorta was revealed, which also involved the integrity of the heart wall and interauricular septum. The right heart was very much hypertrophied, the left very much dilated. The cavity of the aneurism must have been about the size of a black-walnut. Patches of atheroma, with occasional calcareous patches, were seen all along the course of the thoracic aorta.

The abdominal viscera were normal.

In the uterus—which was of normal size—were found several small fibroid tumors, the largest of which was not more than 2 cm. in diameter. A similar but much smaller growth involved one extremity of the right ovary.

SURGICAL DEPARTMENT.

Service of Prof. Moses Gunn.

Pott's Disease of the Spine.

W. C. Irish, aged 22, a railroad laborer. This patient, in appearance robust and well nourished, of medium height, but stout and compact built, states that about four years ago he first had a pain in his back, without having received any injury that he can remember. At the same time he had pains in his chest and stomach, but having caught a slight cold paid no attention to them. About a year after this (the pains con-

tinuing), he noticed a prominence on the back bone at the seat of the pain. The pain increased very gradually, for he continued at his work, which required him to lift heavily, until last winter. Since then locomotion has become difficult and his gait unsteady, from disturbance of the nervous distribution, and as the recumbent posture gives him ease he has confined himself to bed. The prominence which you notice, and which gives an angularity to the spine, is about the size of a walnnt and has remained stationary, so the patient states, during the past year. The patient's appetite is good, having been so from first to last. His father and mother are living and well, and no hereditary taint or predisposing dyscrasia can be discovered.

This is a rare case of Pott's disease of the spine, being somewhat out of the usual way, as the patient's health has remained good and he has worked a great part of the time. That circumstance tells us that his health and condition are prime, and that this cannot be a case originating in a scrofulous or vitiated constitution. If the patient had been scrofulous he would hardly have continued at his work, lifting heavily as it required. This rules out scrofula and throws us upon the probability of some mechanical origin.

I have frequently called your attention to the premonitory signs of pectoral and abdominal pains, as exhibited in this case, advising you that in a child who has these symptoms, which are often attributed to a cold, they should lead you, in the absence of pulmonary or abdominal lesion, to suspect disease of the spine.

The singular part of this case is that it should have gone on to softening of the bodies of the vertebræ, with so few of the usual signs and so little constitutional disturbance.

The patient, now for the first time, calls attention to his testicles which are swollen, but not tender. He says he first noticed the swelling coming on gradually about a year ago. This throws anything but light upon the subject, and gives a coloring of scrofula to the case.

He expresses himself as experiencing comparative ease when held up and the head and shouleers are braced back, from the

throwing of weight off from the bodies and upon the articular process of the vertebræ—the hint upon which mechanical support is founded—and he is advised to wear the usual apparatus for these cases. His nutrition is so good that were it not for the swolllen testicles I would have no inclination to advise any medication, but as it is he will be put upon cod liver oil, iodine and tonics.

NOTES FROM DISPENSARY AND PRIVATE PRACTICE.

Rare Form of Congenital, Multiple amd Monolateral Pigmentary Nævus, having the disposition of Zoster Corporis.

On the 18th of August, 1877, John McDonald, an unmarried laboring man, aged 31 years, native of St. Johns, New Brunswick, applied at the skin department of the South Side Dispensary of Chicago. His stature was rather above the medium height, hair and eyes black, complexion florid. He stated that his father and mother were healthy, and that he had twelve brothers and sisters none of whom exhibited congenital deformity.

Since his arrival at adult years he had always indulged freely in the use of spirits until the beginning of the present year. In 1867 he contracted a gonorrhœa which lasted for three months, and was accompanied by an attack pronounced by his physician to be "gonorrhœal rheumatism." One year afterward a suspicious intercourse was followed by swellings in each groin, unaccompanied by any observed genital lesion, which suppurated and were incised. In three months thereafter, intercourse was again succeeded by suppurative inguinal adenopathy, and an ulcer upon the glans penis. On the third year afterward he again had genital ulcer and non-suppurative swellings in the groin. In 1875, when suffering from an eruption produced by the poison ivy, he was treated by Dr. F. W. Draper, in the Boston City Hospital, and relieved, as he states, by the application of zinc ointment. Soon after he

was treated for blotches upon the face, which were followed by pustules, pronounced by Dr. Chandler to be lesions of secondary syphilis.

In the latter part of July, 1877, after laboring in the grain fields of Sterling, Illinois, he suddenly noticed that his face and hands were "burning hot," and soon became much swollen, little "watery heads" appearing over the affected parts. This led him to apply for relief.

On examination, the exposed surfaces of the body were found to be affected with what seemed to be an induced eczema in the phase of retrogression. The skin of the face was erythematous merely—the swelling described having subsided, while the outer aspect of the upper extremities, and the wrists in particular, were reddened, excoriated and covered with light yellow crusts. The portions of the integument covered by clothing were entirely unaffected, except as mentioned below: the skin being soft and white, and exhibiting no cicatrices except those resulting from the old inguinal incisions. The hair was abundant; there was no adenopathy; the fauces were unaffected, and no trace of syphilitic disease was discernible. It seemed probable that the patient had again suffered from the poisonous effects of the rhus toxicodendron, and such in fact was his own belief. In a few days the cutaneous disease disappeared under the use of an emollient lotion.

The examination of his person led to the incidental discovery of a unique deformity which he stated had existed from birth, and which, his mother had told him, she had for a long time after he was born, endeavored to remove by washing, on the supposition that his skin was covered with "dirt." Its appearance had not changed since he first began to notice it, and it was unaccompanied by subjective sensations.

The deformity existed exclusively upon the left side of the body, and was produced by the abundant development of uniformly split-pea sized, irregularly square-shaped, discrete and closely packed, pigmentary nævi, varying in color from a light fawn to a deep chocolate, with the exception of the scrotal region, where the moles were larger and of a dull reddish hue.

The flattened summit of each was slightly uneven, elevated above the surface of the integument by about one-eighth of an inch, and in no single instance provided with hair.

Four distinct regions of distribution could be defined as follows :

1. A single line of closely-packed moles, commencing in the axilla, at about one-half inch posterior to the axillary border of the pectoralis major muscle, extended in a gentle curve, through a point one-half inch above the left nipple, to the exact mesian line of the sternum, where it abruptly terminated. These were of a light fawn color, and were the lightest in shade of all displayed upon the person.

2. Over the 8th rib, and beginning at a line dropped from the anterior border of the axilla, a broad ribbon of deep chocolate-colored, and in some places almost black, nævi, densely crowded together, extended in a gentle curve exactly to the linea alba, spreading thence upward and downward, in a vertical line, from the umbilicus to six inches above that point. This T shaped band was, on an average, one and one-half inches in width.

3. Commencing over the latero-posterior region of the trunk, five inches from the lumbar spines and one and one-half inches above the dorsum of the ilium, another ribbon, composed of closely-packed moles, extended horizontally to an imaginary line dropped from the anterior border of the axilla. This was the sole region where the hypertrophic growths did not fully extend to the median line of the body. They were of a deep fawn color, lighter in shade than these last described.

4. Beginning at a point about midway between the anus and the left tuber ischii, an irregular line of nævi extended forward and upward over the left side of the penis and scrotum, where they were disposed without apparent order. These were, as has been stated, larger than those upon the trunk, being many of them of the size of a small bean, and displaying a dull red hue. In no instance was one discovered on the right side of the raphé of the scrotum, nor upon the right of the mesian line of the penis. The nævi upon the penis were smaller and much less pigmented than those upon the scrotum.

All the extremities were free from the deformity.

Viewing the patient at a distance sufficient to remove the distinction of individual nævi, and observing merely the lines and areas traced by the hypertrophy, the appearance was highly suggestive of zoster of the trunk. The patient stated, moreover, that his former physicians had declared that he was affected with "shingles."

Excision of a portion of the hypertrophic growths for further examination was not permitted.

According to Hebra, the existence of pigmentary moles is rarely established at birth. The history of the case here reported is quite conclusive as to the congenital character of the lesions, and their distribution indicates, very distinctly, that the affected surfaces corresponded to the regions of skin supplied by the anterior branches of the lateral cutaneous nerves. The fact that certain maternal nævi are due to intra-uterine perturbations of the nervous ganglia of the fœtus, was first observed by von Baerensprung in 1859[1], and embodied in a paper by the same author in 1863. An interesting communication by Dr. Roberto Campana of Naples, to the *Italian Journal of Venereal and Skin Diseases* for October, 1876[2], establishes, further, an intimate connection between the location of *vascular nævi* and the territories supplied by various cranial, cervical, brachial, dorsal and lumbar nerves. The fact of such intra-uterine involvement of the nervous ganglia of the fœtus will at present be scarcely disputed; but I have been unable to find a reported case which, in its general features, resembles that described above. It, however, most nearly corresponds to an observation made by Martin Arndt in 1839. In the report made by the latter, it appears that the left side of the body was exclusively affected, pigmented, hypertrophic nævi, isolated and occurring also in bands, having been observed upon the neck, the shoulders, the clavicle, the upper arm, the elbow and the thorax. In the locality last named, three parallel bands of deeply pigmented nævi extended to the median line of the body, and there

(1) Nævius unius lateris Von Baerensprung, Ann. d. Char. Krank., Bd 11, Sept. 2, 1863, p. 91, et seq.

(2) Giorn. Ital. d. Mal. Ven. e. d. Pel., Oct., 1876; F. 5, p. 257.

coalescing, spread in a vertical direction to the umbilical cicatrix.

The latest reported instance of such hypertrophy was observed by De Amicis, in 1876[1], upon the person of a dark brunette, aged 17 years. But here the entire cutaneous surface was covered with disseminated blackish-brown pigmented nævi, the extremities, including palms and soles, being invaded. The deformity was not described as congenital.

JAMES NEVINS HYDE.

CHICAGO, August, 1877.

A Case of Puncture of the Intestines for the Relief of Overdistension with Gas.

In the JOURNAL AND EXAMINER, Oct., 1876, I reported a case in which I had punctured the bowel for the relief of enormous distension, with marked beneficial results.

I will now give a short history of another case where the same treatment was adopted, and though there was ultimately an unsuccessful issue, it in no wise reflected on the beneficial results of this treatment.

I was called, on the 6th of July, to see D. A., aged fifteen years. He had been playing ball a couple of days before, and, while heated from this exercise, drank freely of cold water.

On examination, I found his pulse 108, tongue thickly coated, creamy-yellow, tenderness over the whole abdomen, but more particularly in the region of the sigmoid flexure of the colon, persistent vomiting and considerable pain. I diagnosed the case as one of colitis, and ordered some powders of morphine and bismuth, warm poultices to be applied over the abdomen. I visited the boy daily, and although the pulse rose to 120 with tympanites and a more extended area of tenderness by the 13th, there was a general amelioration of the morbid symptoms, and I regarded him as convalescent. On

(1) Lo Sperimentale, Mar., 1876, p. 312 (Archives of Dermatology, III, II, p. 158.)

the evening of 14th I was sent for in haste to see him. The messenger said he was "taken with cramps in his bowels," and was suffering great pain. Being otherwise engaged, I did not see him that night; but ordered ¼ gr. morphia every two hours to relieve pain, and poultices to be re-applied. Next morning, on visiting him, I found his pulse had risen to 120, and was feeble; tympanites had increased, so that the distension was oppressive; pinched expression of countenance—in short, all the symptoms indicating general peritonitis, which, in fact, was the case. I ordered the morphine and poultices to be continued; but he gradually grew worse, so that by the morning of the 17th his pulse had risen to 140, and was quite feeble. The distension was so great that he had great difficulty in breathing from the pressure on his lungs; the pupils were dilated, skin beginning to get cold, and loss of nervous sensibility, indicating approaching collapse. I had previously determined that, all other means failing, I should resort to puncture and directly liberate the pent-up gas, and I thought the time had now come when it would be proper to do so. Accordingly, I inserted a hollow needle in the region of the transverse colon, liberating a quantity of very offensive gas. I again inserted the needle in the epigastric region, with the effect of permitting the escape of a much greater quantity of gas than from the first puncture, and very sensibly diminishing the distension. *His pulse fell eighteen beats per minute before I left the house*, and the distension never afterwards rose to the same height. Next day his pulse was 118, and tympanites considerably reduced. He continued to improve for several days, when he had some diarrhœa and fever; bnt these symptoms were successfully combatted without much difficulty. He now progressed slowly towards recovery, so that by the 3d August he was able to sit up. By this time his tongue had become clean, and the pulse had fallen to about ninety, which, considering his emaciated condition, was fair. His appetite now became ravenous, and I duly cautioned his attendants not to permit him to eat much at a time, and prescribed the food which I considered best suited to his condition. Notwithstanding my care in this

particular, on the evening of 9th August, he was permitted to eat heartily of "hash," composed of potatoes, onions, beef, etc. Some four or five hours after partaking of this combination, he was seized with violent pain in the bowels, accompanied by vomiting; and in his debilitated condition, he made but little resistance, so that by the next day evening his condition was hopeless, and he died the same night.

I publish this case because I think it is of the utmost importance that this treatment of puncturing the bowel in case of distension, should have a more extended trial. Heretofore our efforts have been limited to fomentations and internal remedies, and these failing, as they so often do, there is no reason why it—i. e. puncture—should not be tried, especially as it has been demonstrated, over and over again, that it is not such a dangerous procedure to puncture the peritoneum. This boy would undoubtedly have died on July 17th, but for the measures which were taken.

E. W. Lee, M. D.

417 W. Jackson St., September, 1877.

Electricity in the treatment of opium poisoning.

At 7 o'clock a. m., March 27th, I was called to see Mrs. S., aged sixty-five years, who was suffering from excruciating spasmodic pain in her stomach, accompanied by frequent belching of gas. She had been subject to such attacks and accustomed to the use of opium for their relief, though she had not found it necessary to take any for more than a year. She had at hand a solution of the deodorized tincture of opium, as well as paragoric, so I administered 60 drops of the former and two drachms of the latter, with a drachm of the bicarbonite of sodium, after which I returned to my office. I visited the lady again at 8.30 and found her still suffering and almost delirious from pain, anxious to find relief in death. I prescribed a drachm of ipecacuanha as an emetic, which failed to vomit, and in fifteen minutes she was asleep. I was called into the country, and did not return until 2 p. m., when I was

hastily summoned to see her, because she had not been awake since 9 a. m., and could not be aroused. If there is ever a time when a physician realizes his responsibility it is when a patient is dangerously narcotized and he has ordered the medicine which may have produced it. I attempted to administer strong coffee and stimulants, of which she could swallow but little, and within an hour all efforts in this direction were useless, as no manipulation would induce her to swallow. Her respirations at this time were six per minute; pulse, fifty and weak; pupils contracted; skin relaxed, with a clammy perspiration and stertorous breathing. In my dilemma, I resolved to try electricity. I applied the battery at 4 o'clock, and repeated it every 15 or 20 minutes, using it for about five minutes at a time, directing the current from the back of the neck and along the spinal column to the feet, and also to the breast, stomach and bowels; as near as possible along the course of the pneumogastric nerve. The attendants frequently rubbed the surface of the body and limbs with strong mustard and water. The effect of the battery was the drying up of the perspiration and a warm feeling of the skin. The throat was frequently cleared of mucus by a swab. After eight hours persistent treatment she moved one of her hands, and in an hour could be induced to swallow, and during the next two hours we gave a pint of strong coffee and half a pint of gin. She made a good recovery, and in a week was able to be up again, and is now engaged in her usual avocations.

Physicians are sometimes undeservedly censured, and in this case, had Mrs S. died, I should have been blamed for causing her death. The facts in the case, however, are that Mrs. S. had taken, at 3 o'clock in the morning, an ounce of the preparation prescribed; that is, half an ounce of the opium solution and half an ounce of paragoric, a fact of which I was then ignorant. Owing to the congested condition of the stomach, the medicine was not absorbed until I gave the ipecac, which relaxed the organs and the opium soon produced a dangerous narcotism.

WYONET, Ill. F. C. ROBINSON, M. D.

Reports of Societies.

PROCEEDINGS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.—FIRST ANNUAL MEETING.*

The Association was called to order at 10 A. M., Sept. 4th, in the Club Rooms of the Cataract House, Niagara Falls, by the President, Prof. James C. White, of Boston. The Report of the Council was read by the Secretary, Dr. L. Duncan Bulkley, of New York. Several names were then proposed for active and honorary membership; and an auditing committee appointed, consisting of Drs. Wm. Brodie, of Detroit, and I. E. Atkinson, of Baltimore.

The President then read his annual address, which contained an interesting historical sketch of the progress of dermatology in America, an eloquent tribute being paid to the labors and teachings of Prof. Hebra, of Vienna, and to their influence especially upon American students abroad. It was in consequence of these teachings that dermatologists had learned to observe diseases of the skin, just as naturalists learn to observe; and, by the aid of the abundant material in dispensaries and hospitals, studied in accordance with the new and better method, it had come to pass, finally, that the men who once shone with reflected light, are now themselves contributors. Looking at the character of the instruction given in dermatology in American medical schools twenty-five years ago, we find a decided improvement noticeable in 1871, when, though no American treatises had been published on the subject, still there was much work and observation, and a promise of better things. To-day we have, in many of the schools, special instruction given, and the only journal specially devoted to dermatology in the English language, is published in this country. He (the president) had received 39 replies to a

* In the compilation of this report, I have simply enlarged the excellent report o Dr. Edw. Wigglesworth, (published in the Boston Med. and Surg. Journal, Sept. 13, 1877,) by the addition of notes taken by myself during the sessions.—J. N. H.

circular issued by himself, asking for the number and title of published contributions, and the journals in which they have appeared. These thirty-nine replies reported 258 contributions on dermatological subjects, and 54 on subjects connected with syphilis; in all 312. There were also translations, reviews, analyses; two special treatises by American authors; one atlas. The success of the N. Y. Dermatological Society had undoubtedly contributed to the result.

The objects of the Association are: 1. The affording of opportunities for a more intimate personal acquaintance among American dermatologists, thus obviating the tendency to harsh judgments upon necessary differences through ignorance of personalities. 2. To average the varying views upon ætiology and treatment, by oral discussion in each others' presence, and thus to elaborate a common basis for work. 3. To ascertain by observant study and by the collection of statistical data, the peculiarities of cutaneous diseases at present existing in this country, the establishment of a standing committee for this purpose being desirable, and to investigate new diseases, such as leprosy, which seems to have made its appearance in the South. 4. The establishment of a common nomenclature in dermatology. 5. To foster the interests of dermatology in its general relations to the medical profession and to the public.

The objects of the Association show the need of its existence. There are peculiar difficulties and very inappropriate rewards in this specialty of medicine. The medical profession has yet to learn that diseases of the skin are like other diseases, all being subject to the same laws, and all affecting organs composed of similar tissues. Physicians either lack interest in these maladies, or, regarding them as incurable, leave them to chance; or, again, pandering to popular prejudice, talk of "humors," and of diseases "coming out," or "striking in," thus frightening patients into resignation; or will unjustifiably undertake the treatment of maladies of which they are ignorant, merely because they anticipate less evil from mismanagement than they would in the care of maladies of the eye and ear, for instance. Even physicians who consult

a specialist, seem surprised that these diseases subsequently remain apparently as intractable as before, forgetting that the pathological conditions may vary from day to day in an organ so exposed, thus calling for a coincident change, perhaps temporary only, in the plan of treatment. There is a necessity for special teachers, for purposes of education in medical schools. There exists the need of better opportunities for instruction by means of special clinics, either in special hospitals, or in special wards in established institutions. The neglect of existing institutions to do common justice to the patient suffering from these diseases, is an outrage against reason and humanity.

On motion of Dr. Bulkley, a committee was appointed to consider and report upon the recommendations contained in the address, consisting of Dr. Heitzmann, of New York, Dr. Hardaway, of St. Louis, and Dr. Wigglesworth, of Boston.

A paper upon Acute Conditions of Disease excited by the iodide of potassium, by Dr. A. Brooks, of Chicago, was then read out of turn. The writer called attention in it, not to the various cutaneous lesions which the drug is capable of producing, but to varieties of arthritis, iritis and fever, which he believed, were sometimes induced by it.

Dr. I. E. Atkinson had seen affections of several of the cranial nerves induced by the drug, and in one case, erythema of the buccal mucous membrane. He had given two drachms ter die for a month, in conjunction with the biniodide of mercury.

Dr. R. W. Taylor had seen acne, arthralgia, with pain in the sclerotica and conjuctivitis, follow even small doses; after large doses, he had noticed only dermatic lesions, even bloody pemphigus, but without rise in temperature. He had given, by degrees, as much as twelve drachms per diem, for many days; in one case, 20 drachms for a sciatica due to syphilis, which amount, however, produced less effect than 14 drachms combined with two drachms of the bromide of potassium.

Dr. Hardaway had seen syphilitic albuminuria disappear under similar doses.

Dr. L. A. Duhring regretted that the paper had not discussed the cutaneous lesions induced by the drug, and narrated the case of a lad, who applied for treatment of an oozing and crusted patch of infiltrated eczema upon the fore-arm. There was also a vesicular and bullous eruption upon the wrists, fore-arms, backs and palms of the hands. The vesicles were from pin-head to pea-sized, elevated and in places confluent, resembling variola, though there were no pustules. The whole picture was a *fac simile* of Tilbury Fox's plate of dysidrosis. The eruption appeared the day after taking three or four ten grain doses of the iodide. The vesicles oozed when punctured, but did not collapse, filled as they were by a gelatiniform secretion, exactly resembling a grain of boiled sago, when viewed from without. There was no itching, œdema, nor febrile disturbance. The eruption dried up in a week, without treatment. The eczema was not influenced by the drug.

Dr. Van Harlingen had also seen the case and added that the eruption was essentially upon the extensor surfaces, becoming more scattered as it extended up the arm. The ezcematous patch was about 4 by 3 inches, and upon the flexor surface. The vesicles were umbilicated. The pulse quite normal. After the symptoms had disappeared, the drug was again administered for the sake of experiment, and the vesicles immediately re-appeared.

Dr. J. N. Hyde had given one and one half drachms *ter die* for a week in one case, and added that the writer of the paper under discussion, had stated in his presence, that he had administered one thousand grains *per diem*. The speaker referred to the fact that often a small or moderate dose of the iodide, would produce the phenomena of coryza, &c., while the larger doses mentioned, were occasionally very well tolerated.

Dr. W. A. Hardaway had seen intense urticaria, even purpura urticata upon a tuberculous patient, who had taken half a grain of the iodide.

The first paper of the afternoon session was read by Dr. L. D. Bulkley of New York, and entitled, On the so-called Eczema Marginatum of Hebra (tinea circinata cruris) as observed in

America (1). Dr. Bulkley's treatment was by sulphurous acid.

Dr. Heitzmann considered the disease the same in this country as in Vienna. He did not consider the success of the treatment, so far as time was concerned, any greater than by other methods. He had repeatedly cured cases in a week by means of Wilkinson's ointment spread upon rags and closely and continuously applied.

Dr. Duhring remarked that Eczema might be found in the region attacked by the so-called Eczema Marginatum, and should bear its own name. That tinea circinata might also exist there and ought to retain its own name; that, furthermore, the two diseases were, from the first, distinguishable from each other. In Philadelphia the disease assumed a milder type.

Dr. R. W. Taylor remarked that he had observed one of the cases reported, which certainly seemed to be a marginate form of eczema, merely. The itching was severe, the margin was defined by glazed papules, the affected integument was of a violaceous brown color, and there was coexistent eczema manuum. He had not discovered the parasite.

The president remarked that he recognized three distinct varieties of disease in this locality, having the general features described. 1. There was true ringworm—the development of the *tinea tricophytina* being the same here as in Europe. 2. Chronic and advanced cases, where the two diseases were combined, the eczema becoming subsequently inoculated with the parasite, or the development of the latter inducing an eczema, as it would in patients subject to this affection. He had seen cases of "Burmese Ringworm" where, after destruction of the parasite, the eczema only died out very gradually. 3. Cases of eczema, where no parasite existed. The margin of the affected patches was defined by an elevated border. There was no resemblance here to either tinea favosa or tinea versicolor. The disease is slow of cure, and although Wilkinson's ointment is very valuable, he had never obtained from it the speedy effects claimed by Dr. Heitzmann.

A paper on the Pathology of Seborrhœa was then read by

(1) This paper will appear in full in the November No. of the CHICAGO MEDICAL JOURNAL AND EXAMINER.

Arthur Van Harlingen, M. D., of Philadelphia. The following were the author's conclusions:

1. The sebaceous secretion is derived from fatty metamorphosis of the enchyma cells of the sebaceous glands. These cells are homologous with those of the stratum mucosum of the skin. They have nothing in common with the cells of the horny layer.

2. Seborrhœa is a disease of the sebaceous glands, characterized by the pouring out of an increased quantity of sebum, more or less altered in chemical and physical composition. In comedo and seborrhœa sicca, properly so called, the secretion is condensed to a fatty consistency, while in seborrhœa oleosa it remains in an oily state; in each of these affections, however, microscopic examination shows epithelial cells in a state of more or less complete fatty degeneration and breaking down into granular debris. Horny cells are only found adventitiously.

3. Certain forms of disease heretofore commonly classed as seborrhœa sicca, should properly be removed from the category of diseases of the sebaceous glands, since the pathological product in these cases is not sebum, but epithelium from the horny layer of the skin. Any sebum which may be present is a mere accompaniment of the epithelial product. For these cases the designation pityriasis, or pityriasis simplex would seem appropriate.

Dr. G. H. Fox referred to a case where the whole glans penis was enveloped as with smegma, by an apparently epithelial growth, which could be scaled off in laminæ.

The president spoke of this condition as one of a commencing horny growth, the development of epithelial matter being accompanied by enlargement of the papillæ, and followed by horn formations. For two years he had had such a case under observation while developing. At first laminæ could be removed.

Dr. G. H. Fox then read a paper upon molluscum contagiosum, based upon the observation by himself of twenty-six cases. Five per cent. of these occurred upon the male genitals. He believed the affection to be rare in private practice; and called attention to its frequent co-existence with

warts; this co-existence being of such frequent occurrence that it is to be regarded as more than an accident. He suggested that the term molluscum simply, should be applied to the disease, and that the affection designated as *molluscum fibrosum* be termed fibroma, thus clearly distinguishing the two.

Dr. Heitzmann stated that he had examined two such cases under the microscope, and found epithelial elements in a state of fatty degeneration, containing the molluscous bodies of Virchow and Rindfleisch, which are supposed to be the bearers of contagion. He had seen molluscum occurring upon the thighs of women after leucorrhœa, just as papillomatous warts may arise by contact with the secretion of blennorrhagia, of which he had seen one case upon the face. The sebaceous glands, the root sheaths of the hairs, etc., may be at times in such a condition that irritative stimulation is alone needed for the production of the new growth. Dr. Heitzmann recognized the relationship between molluscum and common warts, and did not regard the former as contagious. Recent investigations at Vienna also tend to disprove any contagiousness.

Dr. Hyde, referring to Dr. Heitzmann's remarks, stated that the vegetations induced by fluids of a blenorrhagic nature, did not necessarily result in a single individual from even the most virulent of secretions. It seemed as though the process of "acclimatization of the penis," first described by Ricord, often influenced the development of these growths. In certain cases an individual who has had several attacks of blennorrhagia, will find the most luxurious development of vegetations first occurring after contact with secretions, to which he is unaccustomed; and which are not nearly so acrid as those to which he had been formerly exposed.

Dr. Duhring spoke of the rarity of molluscum among the upper classes in Philadelphia, where, however, it did occur. He had rarely met with well developed cases in children, though he had seen scores where the appearances were ill developed, or in an abortive stage, the size perhaps of a pin's head.

Dr. E. Wigglesworth, of Boston, was also skeptical in regard to the contagiousness of the disease in question, although he

could say, in answer to Dr. Duhring's remarks, that he himself had been at one time the subject of an attack of molluscum, occurring, curiously enough, but a short time subsequently to his having expressed with his thumb-nails the contents of several molluscous papules, for purposes of microscopical examination, from a patient in dispensary practice. In his own case the individual lesions had been found successively, and upon various parts of the trunks and limbs.

Dr. Wigglesworth's paper upon Faulty Innervation as a factor in Skin Disease, was then read by title only, owing to illness upon his part.

A short paper by Dr. Dyce Duckworth, of London, upon the Treatment of Severe Bed Sores, was next read by the secretary, and the Association adjourned.

SECOND DAY, SEPTEMBER FIFTH.

After the reading and acceptance of the Report of the Treasurer and Auditing Committee, the Report of the Committee on the President's Address was received and considered. In accordance with the reccommendations contained in the latter, the following committees were appointed: on *Nomenclature*: the President, *ex officio*, and Drs. Duhring, Taylor, Wigglesworth and Heitzmann; on *Statistics*: Drs. White, Bulkley, Hyde, Atkinson, Hardaway, Yandell, Van Harlingan and Brodie. On motion it was agreed that the bibliographical statement prepared by the President be incorporated with the transactions of the Association. The following officers were elected for the ensuing year:

President—James C. White, of Boston. *Vice-Presidents*—L. D. Bulkley and C. Heitzmann, of New York. *Secretary*—R. W. Taylor, of New York. *Treasurer*—I. E. Atkinson, of Baltimore.

The following were chosen honorary members of the Association by unanimous vote:

Prof. F. Hebra, of Vienna; Prof. Erasmus Wilson, of London, and Prof. Hardy, of Paris.

The following named gentlemen were chosen active members:

Dr. W. H. Geddings, of Aitken, S. C.; Dr. Silas Durkee, of Boston, Mass; Dr. F. P. Foster, of New York, and Dr. Sam'l. Sherwell, of Brooklyn, L. I.

Dr. Hyde announced a brief paper describing a "rare form of multiple, congenital and monolateral pigmentary nævus," and received permission to present it.

Dr. Campbell, of New York, then read a description of a Case of True Prurigo (of Hebra).

Dr. Duhring had seen this case, and but one one other in this country, a case shown him some four years ago by Dr. Wigglesworth, occurring in Boston. General discussion showed that none of those present had ever observed more than two cases, and these, for the most part, were the same cases seen by the various physicians.

Dr. Wigglesworth, in addition to the case alluded to by Dr. Duhring, the first case ever published in this country, reported in full in the January No. for 1873, of the *American Journal of Syphilography and Dermatology*, had seen another case occurring upon a farmer, where the formation of papules, the thickening of the skin, the buboes in the groins, the locality of the parts affected, the peculiar appearance to the eye, and to the fingers after rubbing them upon the lower limbs, the sound caused by this, the discoloration, furrows and scratch marks, were all symptomatic of prurigo. The only opposing evidence was the statement of the patient, that the disease did not begin in infancy. The case had, unfortunately, been lost sight of in spite of every caution.

The president had never seen a case of true prurigo in this country, and while, of course, not disputing the fact that such had been observed, still he thought that great care should be taken in not mistaking chronic cases of eczema with much infiltration of the skin and secondary changes, for true prurigo.

Dr. J. N. Hyde, of Chicago, then read a paper upon the Immunity of Certain Mothers of Children affected with Hereditary Syphilis. His conclusions were as follows :

1. That if the possibility of the occurrence of conception without maternal infection be admitted, it follows that direct

infection of the wife by the husband may occur at any subsequent period of the gestation. Hence, the date of appearance of maternal syphilis cannot be urged in support of the so-called "syphilis by conception."

2. That, inasmuch as the blood of the husband is capable of transmitting the disease directly to his healthy wife, the non-contagious character of the lesions exhibited by the former, cannot be urged in favor of his innocuousness during the pregnancy of the latter.

3. That many of the physiological and pathological phenomena of pregnancy, render it highly improbable that syphilis of the mother should exist without external manifestations; there being, further, evidence of the fact, that puerperal and scarlet fevers and erysipelas in the human female, as well as spontaneous vaccinia and equinia, are contagious disorders, connected with, and often originating in, abnormal puerperal conditions.

4. That the mode of development of the fertilized ovum demonstrates the phase of its physiological independence of the maternal organism, the placenta discharging a respiratory function and presenting an effectual barrier against intra-uterine infection.

5. That there is evidence to show that not only trichinæ, but various other poisonous organisms, are incapable of transmission through the placental parietes; and that the proofs of such transmission in the case of the exanthematous fevers, and variola in particular, cannot be considered as fully established.

6. That the full weight of Colles' Law is to be estimated in connection with the question whether the child whose hereditary syphilis is derived from the mother exclusively, is capable of infecting its healthy father; and, if no evidence of this latter can be adduced, a higher law becomes defined; viz., that the child whose hereditary syphilis is transmitted by one parent only, is incapable of infecting either.

7. That, if such immunity be established, it is probably due to the fact that the syphilis-bearing cell element cannot readily be implanted upon the soil from which it sprang—a fact illus-

trated by the infecundity of consanguineous marriages, and the non-auto-inoculability, in general, of the primary lesion of syphilis.

Dr. R. W. Taylor remarked that his own view as to the main question was clearly expressed in his paper upon the subject. He thought that the immunity of the mother was due, not to her infection, but to an influence, resulting from her carrying a syphilitic child, which made her insusceptible to the action of the virus.

Dr. Hardaway called attention to the fact, recently shown by Fournier, that the law of Colles had a double bearing—establishing not only the immunity of the mother, but that also of the child.

Dr. Atkinson believed that the syphilitic virus affected the protoplasm itself, and that it was impossible for the interposition of a membrane to check its progress—as impossible as for any membrane of the body in acquired syphilis, to stay its advance. The discussion was then postponed to the afternoon.

A paper was then read by Dr. C. Heitzmann, of New York, on the relation of Impetigo Herpetiformis to Pemphigus, based upon a case observed by himself.

The first paper of the afternoon was by Dr. W. A. Hardaway, of St. Louis, upon the Lymphatic Theory of Syphilitic Infection, with a new view of the Relation between Chancre and Chancroid, and suggestions for the radical cure of syphilis.

Dr. Atkinson, (having had the floor when the debate upon Dr. Hyde's paper was suspended,) went on to say that since the syphilitic virus existed in blood corpuscles and in lymphatic and spermatic cells, wherever the protoplasm of the body reaches, there the virus may reach. He believed in the law of Colles, considering the mother as already infected, the wall between the mother and the fœtus having been already inoculated by the syphilitic protoplasm nourishing the fœtus. The speaker, like Dr. Hardaway, considered the lymphatic system the medium of contagion. He did not regard induration as the necessary sign of infection. All pus is contagious. When unformed, immature, or less virulent, its element might

enter into the system, carrying the constitutional infection. Formed pus, although syphilitic, caused merely a local lesion, being too large to enter the blood. Could it do so, it would produce disease even more violent than syphilis.

Dr. Heitzmann declared his belief that at no distant day these problems would be all solved by the microscopist. He was now able to detect the difference between healthy blood and that of a scrofulous patient—merely by using his objectives.

Dr. Hyde stated that, the discussion having been prolonged, he would not occupy time further than to state that the question regarding the lymphatic system as that by which infectious material was introduced into the blood-mass, had passed from the domain of speculation and theory, and was an established and accepted proposition. Were other evidence wanting, the recently published experiment of Maurice Reynaud—reported by the latter to the French Academy,—was sufficient to settle the question. Reynaud produced horse-pox by inoculation, and when the vesicles were fully developed, he laid bare a lymphatic vessel passing from the site of the lesions, opened it, established a lymphatic fistula, collected the lymph, injected it into the jugular vein of another horse, and, after a due period of incubation, had the satisfaction of seeing the second animal covered with a superb eruption of horse-pox vesicles.

Dr. R. W. Taylor then read a paper on the Xeroderma of Hebra, being an exhaustive description, with comments, of seven cases of this rare form of disease, observed by himself in New York City. Photographs of these patients were exhibited to the Association, the larger number occurring in a single family of Austrian Jews, residents of New York.

Dr. Heitzmann had observed in Vienna two cases of this affection and subsequently in this country, upon an immigrant, the first case ever observed here, one which had been already described by Dr. Lewin, of Berlin. He had seen the four cases of Dr. Taylor, and since these two others, one being at present under treatment. This last is the case of a male adult, who has had the disease for thirty years. The patches exist upon the face and hands. There is also an ulceration

upon the left cheek, which Dr. Heitzmann regarded at first as rodent ulcer, and upon which he has operated four times with a dermal curette or scraping spoon, the wound in each case healing kindly. Every six months, however, a nodule again forms. Microscopic examination showed the presence of the elements of epithelial cancer, agreeing with the description of Kaposi.

The president called attention to the resemblance of this disease in its early stages to the "morphœa" of Wilson, the erythema and pigmentary deposits being followed by flat atrophy of the skin. Cancerous growths may appear upon many forms of papillary hypertrophy or of pigmentary deposits in other skin diseases as well as in this.

Dr. Duhring spoke of the resemblance of these cases to morphœa or the keloid of Addison, so far as regards the teleangeiectasic spots over limited areas of different parts of the body, lasting perhaps a few years, and then undergoing spontaneous involution. The same category may ultimately include these two diseases as morphœa. He regarded the disease in question as an atrophy. In some cases of morphœa also there are marked changes in the capillaries as well as in regard to pigment.

The paper next presented was by Dr. L. P. Yandell, Jr., of Louisville, upon The Ætiology of Cutaneous Diseases.

In reply to Dr. Bulkley, the reader stated that he had found at times in old cases of eczema capitis in children that a periodicity existed in the pruritus, and that he had been able to relieve this by doses of quinine and other anti-periodics without other treatment; so also in cases of eczema upon the upper extremities. It was more difficult where the lower limbs were affected, especially if varicose veins existed. He regarded acute affections of the skin as due to malaria, chronic ones as arising from a scrofulous taint.

The president referred to the prevalence of acute skin diseases in places where malaria did not occur. The reader, no doubt, observed skin diseases upon patients already suffering from malaria, but in Eastern cities they occurred also, and where no malarious taint was in operation. There have been

only three cases of primary malaria ever observed in Boston. Where malaria already exists it may be a predisposing cause. The question depends, then, upon the relative frequency of diseases of the skin in places where there is malaria and where this does not exist. It would be interesting if Dr. Yandell would furnish such statistics at the next annual meeting of the Association, and show the differences between skin diseases, as observed by him in malarious regions and those elsewhere.

Dr. Heitzmann said that in Hungary, where there is much malaria, a Dr. Poor had advanced this theory some ten years since; while in Vienna, where "scrofula" abounded, this last was regarded as the *fons et origo mali*. Both theories had at that time been disproved and the question settled.

The Association then adjourned.

THIRD DAY, SEPTEMBER SIXTH.

Dr. L. A. Duhring, of Philadelphia, read a Case of Undescribed Form of Fragilitas Crinium, in which the hairs were split throughout their whole length, from the bulb to the free extremity; and showed specimens under the microscope.

A paper upon Two Cases of very late Hereditary Syphilis was then read by the secretary, Dr. L. D. Bulkley, of New York.

Dr. Taylor thought that there was an immunity possessed by the skin after the age of twenty years, and he would distrust all symptoms occurring later than this period for the first time, and refer them rather to acquired syphilis.

Dr. Atkinson referred to a case of syphilis inherited through two generations, reported by him in the *Archives of Dermatology* for January, 1877.

The president had seen atrophy of the dental tissues occur in the second teeth, where no syphilis existed, the case being preceded by severe illness of an acutely inflammatory type. Here the lower teeth, the molars and canines were sound, the lateral upper incisors wanting, and the central ones notched.

Papers upon the Pathological History of Psoriasis, by Dr. A. R. Robinson, of New York; The Auto-Inoculation of Vegetable Parasites, and their Non-Identity, by Dr. E. Wigglesworth, of Boston; and Affections of the Testicle in Hered-

itary Syphilis, by Dr. R. W. Taylor, of New York, were then read by title only.

Dr. Van Harlingen showed tubes, like those used in oil painting but larger, for the purpose of preserving and dispensing ointments, which should be melted and poured into the open bases of the tubes, these being then closed. This offered also a cleanly method of transporting ointments. They were also in use for English shaving soaps, and could be obtained of all sizes, of Remington, 18th and Walnut streets, Philadelphia.

Dr. Fox had used these to inject ointments through a soft catheter into the deep urethra.

After the induction of the newly-elected officers, the Association adjourned to meet at Saratoga, New York, on the last Tuesday of August, 1878.

SOCIETY OF PHYSICIANS AND SURGEONS.

(Reported by F. M. Hall, M. D.)

Regular Meeting, September 10th, 1877.

The President, Prof. Wm. A. Byford, in the chair.

The society met, for the first time, this evening, in the rooms of the Chicago Medical Press Association (188 South Clark street), which had been kindly tendered them by the association for their meetings. The members seem to be well pleased with their accommodations, and fully appreciate the courtesy shown them.

After the meeting had been called to order by the President, the minutes of the preceding meeting were read by the Secretary, and accepted by the society.

John H. Rauch, M. D., President of the Illinois State Board of Health, having been proposed for membership at a previous meeting, the Secretary was instructed to cast the vote of the society in his favor.

As there was no further business of special importance before

the society, an informal discussion of the use of eucalyptus followed.

Dr. Bevan had used it beneficially in cases of debility and prostration, accompanied by nervous excitability. He considered it very similar to valerian in its action. It was tonic, stimulant and slightly anodyne.

Dr. Byford agreed with Dr. Bevan in regard to its action. He had used it where there was great debility (accompanying uterine disease), with violent sub-occipital headache, and pain following the course of the spinal column, culminating in convulsions, and was well pleased with its effects.

Dr. Bridge said the elixir of eucalyptus would completely cover the disagreeable taste of quinine.

The proportions to be used are as follows : gr. j. to the ʒj. of the elixir. In speaking of the different preparations covering the taste of quinine, Dr. Merriman mentioned glycyrrhizin, which is the flavoring extract of glycyrrhiza: The glycyrrhizin (3 or 4 grains) should be taken into the mouth and allowed to dissolve until you obtain the full taste of the licorice. The quinine should then be taken into the mouth and immediately swallowed.

The meeting then adjourned.

Reviews and Book Notices.

Cyclopædia of the Practice of Medicine. Edited by *H. Von Ziemssen*, Vol. XII. Diseases of the Nervous System. By *Prof. Nothnagel* of Jena, *Prof. E. Hitzig*, of Zurich, *Prof. F. Obernier*, of Bonn, *Prof. O. Heubner*, of Leipzig, and *Prof. G. Huguenin*, of Zurich. *William Wood & Co.*, New York.

Prof. Nothnagel's monograph, considers Anæmia, Hyperæmia, Hemorrhage, Thrombosis, and Embolism of the Brain, and treats most ably of the morbid states in question. The translation is by Dr. James J. Putnam, and is creditably executed.

Obernier. Takes up the obscure and difficult study of tumors of the brain and its membranes, and has collected an amount of data that the casual student would not have supposed existed on the subject, and while leaving much to be desired, and much that remains indefinite, has made a positive contribution to our knowledge of this class of cases. Translated by Dr. Henry R. Swanzy.

Heubner. Has studied exhaustively the effects of Syphilis upon the brain, its membranes and the peripheral nerves. No specially new additions have been made to our previous knowledge of the subject, but he has collected the facts which were hitherto widely scattered, and has earned the thanks of the profession for a clear, lucid statement, in compact form, of our possessions and resources for treatment of these diseases. Translated by Robert T. Edes, M. D.

Huguenin. Takes up the study of the chronic and acute inflammations of the brain, and has given on this important group one of the most valuable monographs yet published. His style is clear, and statements supported by a wide experience, while his deductions logically drawn, lead us at once to attach great importance to his opinions. It is the longest and most elaborate of the five monographs constituting the volume. It is translated by Drs. Bradford, Shattuck and Cutler.

Hitzig's Memoirs on hypertrophy and atrophy of the brain are of interest, as is everything coming from the pen of this distinguished observer. After a careful study of the pathology of these diseases, he advises what almost all alienists would endorse—the early removal of the patient to a well conducted asylum, furnished with large grounds. His first requisite in treatment is *rest* under continuous skilled oversight; *fresh air*, good *nourishment*. His therapeutics do not differ essentially from that usually adopted in the treatment of the better class of American institutions. The memoirs are well translated by Dr. S. G. Webber.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE: Edited by *Dr. H. Von Ziemssen*, Professor of Clinical Medicine in Munich, Bavaria. Vol. VII. Diseases of the Chylopoetic System, together with the Chapters on Diseases of the Naso-pharyngeal Cavity and Pharynx, Laryngitis Phlegmenosa, Perichondritis Laryngea, Ulcerations and Tumors and Neuroses of the Larynx, by *Prof. Wendt*, of Leipzig; *Prof. W. Leube*, of Jena; *Dr. O. Leichtenstern*, of Tuebingen; *Prof. Heller*, of Kiel; *Prof. Von Ziemssen*, of Munich, and *Dr. A. Steffen*, of Steffn: Wm. Wood & Co. 1876. Octavo; pp. 1,046.

The first article is an exhaustive one, by the late Dr. Herman Wendt, of Leipzig, on diseases of the naso-pharyngeal cavity and pharynx. Dr. W. discusses the general anatomy of the region, its participation in respiration, in deglutition, and in speech, and its relations to the ear. Then he reviews the general symptomatology, diagnosis and treatment of the various diseases of the locality. The article, as a whole, strikes us favorably, not so much because of its originality as of the painstaking and laborious examination of authorities, and judicious selection displayed in the compilation. We take exception, emphatically, to the recommendation he makes of the nasal douche, "as a valuable and, with ordinary care, harmless instrument in the treatment of nasal catarrh," and can only account for his freedom from accident in its use, by supposing his practical experience with it was not extensive.

The article on diseases of the stomach and intestines, by Prof. Leube, has an admirable introductory chapter on the anatomical and physiological relations and functions of the stomach.

The chapter on ulcer of the stomach is well worth careful study; it is comprehensive, thorough and the therapy is scientific.

The article by Prof. Leichtenstern, on constrictions, occlusions and displacements of the intestines, is full but heavy and uninteresting, and is mainly a compilation, but as such is very valuable.

The article on intestinal parasites is a success, so far as classification, etiology, general pathology and diagnosis are

concerned, but the treatment proposed for some varieties seems to be unnecessarily elaborate; for example, the method recommended for the treatment of oxyuris vermicularis, is washing out the large intestine with a solution of soap—an enema tube eighteen inches long and a glass funnel being used for the purpose. The patient is placed in various positions on his hands and knees, on his belly, and on his back, and with thighs well flexed on the abdomen; three or four quarts of water being thus introduced, under a moderate pressure.

About one-fifth of this volume is devoted to diseases of the larynx. The author, Prof. H. Von Ziemssen, from an extended experience and careful study, has been enabled to furnish a most excellent chapter upon these diseases. He has carefully described plegmonous laryngitis, inflammations of the perichondrium, ulcerations and tumors of the larynx, and the various neuroses to which this organ is subject. The article is written with the clearness and precision which mark the productions of this author, and is amply illustrated with wood cuts, so that those not familiar with these subjects could hardly do better than read this chapter.

An anatomico-physiological introduction precedes the article on the neuroses, which, by the aid of three or four wood cuts, gives a clear idea of the functions of the muscles and nerves of the larynx, as at present understood. As students of anatomy often neglect this subject, we think the majority of physicians would find this of very great interest.

In the treatment of syphilitic affections of the larynx, the author urges the necessity of active treatment in the endeavor to check the progress of the disease as soon as possible.

He greatly prefers mercurial inunction to any other means, and he employs it so vigorously that the greatest care is necessary to prevent ptyalism. Iodide of potassium is only recommended in those cases where there is a "depraved constitution,"—where the mercurial treatment does not produce the desired result, or when, in doubtful cases, (in the absence of alarming conditions) it is desired to establish the diagnosis by the treatment.

In these cases, he recommends this remedy in doses of from five to seven and a half grains every two hours.

The theory advanced, that paralysis of the recurrent laryngeal nerve, in cases of aneurisms and tumors, is due more to stretching than to pressure, would seem to be refuted by the alleged results of the treatment of sciatica by nerve stretching, as recommended by Prof. Nussbaum, of Munich.

In the treatment of paralysis of the laryngeal muscles, electricity is highly recommended, especially when employed through the pharynx. Strychnia, in solution, used hypodermically, is said to be "most worthy" of confidence. The dose recommended is at first gr. $\frac{1}{14}$, which in adults is soon increased to gr. $\frac{1}{7}$. These doses seem so large as not to be free from danger, yet the author claims to have used them "without detriment and with the best results."

Following this is an article by Steffen, on pseudo-croup, or "Spasm of the Glottis."

The article begins with a concise history of the disease, and the theories entertained by different authors as to its causation.

The author discards all others of the long list of names by which this affection has been designated, because, in his opinion, none of them so clearly represent the conditions of the disease as the one chosen.

According to the author, the paroxysm depends upon a spastic contraction of the muscles, which normally narrow the glottis, and the abnormal activity of these muscles has its foundation in a pathological irritation of the recurrent laryngeal nerve.

The predisposing cause of this spasm is, in nine cases out of ten, rachitis; and the principal exciting cause is disturbance of the rhythm of the respiratory acts. This disturbance is usually the result of suddenly awaking out of sleep, changes of position of the body, coughing, screaming, mental agitation, disturbances of mind, swallowing food, and abrupt changes of temperature.

In the etiology of this affection heredity has little, if any, influence. Catarrhs of the larynx, trachea and bronchi, are incapable of producing spasm of the glottis, and the thymus gland has nothing to do with this disease. Enlargements of the tracheal and bronchial glands, and some other conditions, are supposed to exert some influence in the causation.

In adults this disease cannot be caused by rachitis. It may result from local irritation of the larynx, or from reflex irritation, and as it occurs most frequently in females, these reflex manifestations usually have their basis in affections of the uterus.

Including all cases, the prognosis is thought to be, on the whole, favorable.

Regarding treatment during the paroxysm, the author suggests nothing new, but recommends those methods which, to us, seem least likely to afford prompt relief. Between the attacks his treatment usually resolves itself into combatting the real or fancied rachitis.

This volume contains much of interest to the general practitioner, which can hardly be ignored by those who have access to the writings of other authors upon the subjects of which it treats.

A Practical Treatise on the Diseases of Children. By *J. Forseith Meigs, M.D.*, and *William Pepper, A. M., M.D.* Sixth Edition. Revised and enlarged. *Lindsay & Blakiston*, Philadelphia. 1877.

More than any of the preceding, this edition assumes a place of high rank in the literature of Children's Diseases. In it there has been added an excellent article on cerebro-spinal meningitis, and a short one on night terrors; while that on cerebral congestion has been carefully re-written, and the subject presented in a much more comprehensive and satisfactory manner than heretofore.

These additions and alterations have been made in such a manner that the bulk of the volume is not materially increased. It seems to have been the endeavor of the authors to make this book complete and exhaustive, and at the same time to keep it within the limits of a text-book. The length, however, of the articles and the extent to which the opinions of other authors are given, render the discussions almost too extended for the student's limited time, and tend to make it more available as a book of reference. In fact, it is in this particular that the book is achieving its greatest success; and it bids fair to

gain for itself, if it may not already be said to have gained, that place in this class of diseases, which Gross' surgery maintains in surgical literature. Its value would, we think, be greatly enhanced did it contain more particular information concerning gastric and intestinal hemorrhage of the new-born, opthalmia neonatorum, diseases of the umbilicus and umbilical hemorrhage—diseases for which we have looked in vain for satisfactory information.

We are also disappointed in finding no mention made of anodynes, narcotics, arterial sedatives, or of iodide of potassium, in the treatment of meningitis. Altogether the book is one which every practitioner, who aspires to excellence, should have in his library, and one which he cannot well afford to be without. H. T. B.

Diseases of the Mind. Notes on the Early Management, European and American Progress, Modern Methods, etc., in the Treatment of Insanity. By *Chas. F. Folsom, M. D.*, Secretary Mass. Board of Health. *A. Williams & Co.*, Publishers, Boston.

The above monograph takes up, *seriatim*, the following subjects: Early Treatment of the Insane, Pinet's Reform and European Progress, English and American Modern Methods, Responsibility, Definitions, Massachusetts Statistics, State Supervision, Asylum Needs and Medical Education, treating them briefly from an enlightened stand-point, supporting the system of non-restraint, insisting upon special training for the care of the insane, and intelligent state supervision. Among the most interesting, is the sketch of Pinet's reforms in France, giving us a glance at the delusions which prevailed in regard to these unfortunates, and the barbarities practiced upon them, by both priest and physician, in the earlier ages. The book of Dr. Folsom is well worth a careful reading. B.

The Practitioner's Reference Book. Adapted to the use of the Physician, The Pharmacist and The Student By *Richard J. Dunglison, M. D.* Philadelphia; Lindsay & Blakiston. 1877. Pp. 341. (Price, $3.50.)

A cursory view of the contents shows the great value of this

book to the busy practitioner. The introduction is the Hippocratic Oath. Following this, is a vast amount of "General Information for the Practitioner," embracing (1) weights and measures of the U. S. Pharmacopœia, (2) of the Metrical System, and of their inter-conversion; (3) number of drops in a fluid drachm; (4) relative value of the drop and minim; (5) approximative measurements; (6) solubility of medicines; (7) abbreviations and (8) comparison of thermometric scales. The work contains some therapeutic and practical hints for the sick-room, posology in its various aspects, directions for medicated baths, list of incompatibles, a condensed view of "the modern treatment of disease," indicating the diseases with the remedies therefor, (a section worth the price of the whole book), rules for the management of infants in the hot season, a tabular view of eruptive fevers, a diagnostic syllabus of uterine inflammations, obstetric memoranda embracing the best means of calculating the date of labor that we have seen, rules for urinalysis, for the treatment of cases of poisoning, for restoring the apparently drowned, for the application and use of disinfectants, and for preventing the spread of infectious diseases. The dietetic preparations and special forms of diet for the sick, and the rules for testing and disinfecting impure drinking-water, are compact, practical, and just what are not found in a similarly small space in any book published to-day. "How to conduct a post-mortem examination" is the most concise article in the work, and is contained in no general text-book obtainable in the United States.

The book is evidently compiled by a busy practitioner, prompted in his selection by a keen appreciation of the lack that all other busy practitioners experience in their libraries. A more judicious selection of subjects could not be made, and the class of physicians—the very busy ones—who need this book the most, will always feel that in purchasing this work they never before received so large a *quid pro quo.*

PRINCIPLES OF THEORETICAL CHEMISTRY. By *Ira Remsen, M. D., Ph. D.*, Professor of Chemistry in the John Hopkins University. Philadelphia: *Henry C. Lea.* 1877.

As its title indicates this work confines itself exclusively to

theoretical chemistry, and is, consequently, but little adapted to the uses of medical men. Those, however, who are desirous of informing themselves accurately concerning the beautiful theories and mathematical principles underlying our modern chemistry, cannot do better than to read Prof. Remsen's admirable book. The investigations of Dalton, of Gay Lussac, of Dulong, of Petit and of others, are carefully considered; Avogadro's law (which is playing such an important part in modern chemistry) is clearly explained, and the important deductions drawn from it, logically demonstrated; and the constitution of chemical compounds, as viewed in the light of our present accepted theories, receives somewhat extended consideration. The whole book is carefully written and fills the field that it is intended to occupy, more satisfactorily than any other similar work with which we are acquainted. W. S. H.

CHEMIA COARTATA; OR, THE KEY TO MODERN CHEMISTRY. By *A. H. Hollmeyer, A. M., M. D.*, Professor of Materia Medica and Therapeutics at the University of Bishop's College; etc., etc. Philadelphia: Lindsay & Blakeston.

The arrangement of this work is decidedly novel, facts and principles being presented in the form of concise tables, so that a vast amount of information is contained in a comparatively small space. Owing to its tabular arrangement, it is especially useful as a book for rapid reference, and we believe that its author claims no more than is just, when he says, in the preface, that the work will be found "to be especially adapted to the wants of

1. Students intending to present themselves for examination;

2. Persons who have learned the *old* notation and wish to become acquainted with the *modern system.*

3- Those who desire to keep themselves posted on this subject, and who can thus easily refresh their memories without doing so at the expense of their other engagements.

W. S. H.

AN ELEMENTARY TREATISE ON PRACTICAL CHEMISTRY AND QUALITATIVE INORGANIC ANALYSIS. By *Frank Clowes, D.S.* London, Fellow of the Chemical Societies of London and Berlin, etc., etc. 1877.

Less comprehensive than Fresenius' classic, yet somewhat cumbersome, "Qualitative Analysis," but more extended than Elliot and Stone's popular manual, the above work seems to fill a want felt by many workers in analytical chemistry. The methods are modern, and the present approved system of nomenclature and notation are used exclusively,—facts which especially commend the book to new students in qulitative analysis. W. S. H.

THE CONVENTION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION AT CHICAGO.

The Fifth Annual Convention of the American Public Health Association assembled at the Grand Pacific Hotel, on September 25th, 26th and 27th, 1877.

TUESDAY, SEPTEMBER 25TH—FIRST DAY.

The meeting was called to order by Dr. John H. Rauch, of Chicago, president of the association, Dr. Elisha Harris, of New York, officiating as secretary. The president opened the proceedings by introducing Mr. Wirt Dexter, who delivered the address of welcome to the convention. Mr. Dexter spoke of the great importance of the work before the convention, and in fact of any movement having for its object the care of the public health. The absence of disease means wealth and prosperity, and the citizens of Chicago, as shrewd business men, should see this. In point of fact, they are more likely to look with favor on conventions relating to commercial projects than on those which discussed such abstract matters as public health. Men think all men mortal but themselves, but when it can be made to appear that the preservation of public health directly affects the pocket of every trader, small or large, they will see things in their true light.

In conclusion, the members were welcomed to the city, and the kindest wishes expressed for the satisfactory progress of the deliberations.

The next business in order was the address of the president, Dr. John H. Rauch, who read an interesting paper on the geological formation and the sanitary conditions of the city of Chicago. The paper dwelt upon the evident geological changes whereby the lake had receded from its ancient boundaries to its present limits, leaving the present site of the city above the water. The ground on which the city was built was therefore varied in its character, running from hard clay to soft, alluvial mud. These facts must be taken into account if the subject of public health would be fully and intelligently studied. Some of the climatic conditions affecting the general health of Chicago were also pointed out, and the subject of sewerage was touched upon. The paper suggested several directions in which it would be profitable to institute systematic and thorough inquiry, and referred them, with other suggestions, to the action of the convention.

SECRETARY'S REPORT.

The secretary, Dr. Elisha Harris, of New York, then read portions of his annual report. The work marked out by the association was alluded to, and also the difficulties met with in procuring accurate statistics. It advocated the organization of State boards of health, who should pay particular attention to preparing maps which should show not only the ordinary typographical features, but the hydrography and the differences in elevation. By this means only could the influence of swampy and marshy grounds, stagnant waters, and other local causes of mortality be accurately and intelligently studied. This work should be still further and more minutely carried out by local boards in the counties and towns. State boards of health had already been organized in thirteen States, and too much importance could not be attached to the work of these boards if properly carried out. Some of the western States had already made considerable progress in the sanitary work, but much remained undone, and it was for the convention to help along the work.

Mr. E. S. Chesbrough, city engineer, was next in order with a paper on "The Problems, Old and New, in the Sanitary Drainage and Sewerage of Chicago and other Western Cities." Mr. Chesbrough remarked that he was not familar with the systems of many of the western cities, but he would confine himself to the work done in Chicago. He then read an interesting paper, giving a full and complete history of the difficulties met with and overcome in draining the city. The work was traced step by step from the time when the water ran in the middle of the street, making bottomless mud-puddles in the principal streets, down to the present complete system of tunnels and sewers which seemed to meet all the requirements. Mr. Chesbrough explained the system by the aid of a map, and answered a number of questions by the members.

The order of business was changed, somewhat, and Mr. Charles F. Folsom, secretary of the State board of health of Massachusetts, spoke at considerable length, and read the draft of a law on "Pollution of Streams." Mr. Folsom spoke of the absolute necessity of some legislation of this character, especially in some of the eastern States where, in some cases, the water in the streams was so foul that the manufactories found it necessary to use a filter before the water could be available for their business. The effect of these pollutions on the health of the neighborhood was fully explained. The subject of pollution of streams, and other sources from which supplies of drinking water were derived for cities and towns, was discussed at length, and Mr. Folsom read the draft of a proposed law for the State of Massachusetts. The law enacted heavy penalties for any act tending to render the water impure or unfit for use. It also gave large discretionary powers to the State boards of health to investigate and prosecute all offenders.

The bill was the subject of much discussion, participated in by Dr. Bevan, Prof. Lyman, Dr. Harris, and others, and on the whole was favorably received. On motion the proposed bill was referred to a special committee of five for some revision and amendments.

The report of the treasurer of the association was received, showing a paid-up membership of two hundred and sixty. No objection being raised, the report was referred to the executive committee.

The secretary reported a list of about one hundred names which had been proposed as honorary members and favorably acted upon by the executive committee. On motion, they were formally elected members.

The meeting adjourned.

THE EVENING SESSION

commenced in the ladies' ordinary at 8 o'clock, Dr. N. S. Davis presiding. Dr. Davis made a few remarks on the early history of Chicago, and pleasant reminiscences of the times when there was "no bottom" on Lake street, and the bull-frogs were the only occupants of the site of the Grand Pacific.

Dr. Hosmer A. Johnson then read a paper on "The Sanitary Geography of Phthisis Pulmonalis and other Pulmonary Diseases in Chicago and Other Cities of the Northwest." The questions discussed were :

1. What is the relative frequency of phthisis pulmonalis in the north-western States as compared with the north-eastern States of the Union?

2. Does phthisis pulmonalis, relatively to other causes of death, become more frequent as population increases in the United States?

3. What is the ratio of increase, if any, in the two sections of the country mentioned?

4. What are the causes that modify the prevalence of this disease in the two sections, and more especially in the north-western states?

These questions were discussed at length, and an imposing array of figures and statistics adduced. The conclusions arrived at seemed to be not a little uncertain to the author himself, particularly as there were so many modifying causes and local influences, that no general rule could be laid down.

Dr. Turner made a few remarks on the subject, and was followed by Dr. Gihon, Medical Inspector, United States Navy, who gave the result of his observations. He said that it was

an acknowledged fact that lung diseases were much more prevalent in what is known as "wet" vessels than in "dry" ones. The medical officers had waged a constant warfare against the practice of washing the decks too frequently. In leaky vessels, or vessels on which decks were kept constantly damp by the over-cleanliness of martinet officers, there was always an excess of consumption and lung diseases; while on vessels with perfectly dry decks these diseases were comparatively rare. The rule seemed to be that a prevailing moist atmosphere, wherever found, was conducive to this class of complaints.

"The Relation of Hygiene to Higher Education" was the subject of an interesting and able paper by Dr. J. M. Gregory, president of the Industrial University of Illinois. The ground was taken that the preservation of health was even of more importance in the colleges and universities than in the primary schools. The necessity of pure air, plenty of exercise, and the danger of a forcing process on the bodily and mental organization of the student were fully set forth.

The meeting then adjourned.

Wednesday, September 26th. Second Day.

The second day's session opened in the ladies' ordinary of the Grand Pacific, the president, Dr. John H. Rauch, in the chair. The first paper read was by Dr. J. L. Andrew, of La Porte, Indiana. The author discussed the influence of trees in condensing moisture from the air and retaining it in the ground. Examples were multiplied to prove the fact that a general clearing out of the forests invariably produced a diminution in the rainfall. Probably the best example was the condition of things in northern Africa, where, by the boring of artesian wells, and planting of trees, stations and oases had been established in the great Sahara desert, and these spots were now frequently visited by showers. A still stronger proof was the fact that the discovered sources of the Nile, which sends its immense floods over the lower country, were in the dense forests and jungles under the equator; jungles so dense that the light of the sun could scarcely penetrate. Similar exam-

ples of the value of tree-planting could be found on our western plains, where the testimony of army officers was unanimously in favor of the good results from such artificial forests. The paper also discussed the value of timber belts and undergrowth in counteracting the malarial effects of swampy and marshy ground, the conclusion being that such timber growths offered a great protection from this class of poisons. The eucalyptus among trees and the sunflower among plants were mentioned, as being particularly valuable for neutralizing and destroying the malarial poisons in exposed situations. The author recommended a still further study of this subject, and expressed the belief that the science of prevention of disease was yet in its infancy. He argued that all regions unfit for profitable cultivation should be devoted to forests, and these forests should be protected by an enlightened public sentiment as well as by legal enactments, on the ground that it was a sanitary as well as an economical necessity.

The secretary then presented a paper by Prof. Brewer, of the Sheffield scientific school of Yale college, on the subject of tree-planting, the arguments and conclusions being similar to those of the preceding paper. It carried the inquiry still further by giving some results of experiments with different species of trees with a view to determining the sanitary qualities of each. The paper was supplemented by some remarks by the secretary, who instanced, the work of laying out a town on Hampstead plains, on Long Island, by A. T. Stewart. In this case the streets were laid out and trees planted in advance of any other improvements.

Dr. Churchill, of Galesburg, spoke of the changes noted in that climate since it was settled. A marked decrease in the rain-fall had resulted, or, at least, followed the clearing away of the forests.

The next paper was by Dr. Ezra M. Hunt, secretary of the State board of health of New Jersey, the subject being, "A Memorandum of Observations and Propositions concerning the Sanitation of Individuals, with Reference to the Arrest and Prevention of Infectious Maladies." In the absence of the author, the secretary read the principal portion of it, accom-

panied with explanatory remarks of his own. The paper was in substance the result of the observations and practice of the author in reference to individual cases with which he had to deal.

A paper, "A Review of the Teachings of Twenty-two Years' Record of the Mortality from Croup, Diphtheria, and Scarlatina in a City," by Dr. Edwin M. Snow, superintendent of public health, Providence, R. I., was also read by the secretary, and consisted principally of carefully prepared statistics of the mortality resulting from these diseases in the city of Providence. Both these papers were accepted, on motion, and ordered printed with the proceedings of the association.

The secretary read a letter from Dr. Samuel Choppan, president of the Louisiana board of health, regretting the inability of that gentleman to be present at the meeting. The letter stated that the arrival of several ships from Havana, with cases of yellow fever on board, had demanded the writer's whole time and attention. He proposed, however, to prepare a paper on the subject of yellow fever, with reference to its prevention by quarantine regulations.

Dr. Henry M. Lyman, of Chicago, read a paper on "'Stamping out' Scarlatina, and the Extinguishment of Zymotic Disease." He first called attention to a chart, showing the comparative amount of mortality from scarlet fever in Chicago since 1850. The chart showed that there had been a scarlet fever epidemic on an average of every five years, and that each visitation had lasted about two years. The death-rate was higher in extremes of heat or cold, the mortality being greater in the midsummer or the midwinter months. The paper suggested measures looking to a prevention of the disease, and took strong grounds against the displaying of the obnoxious cards on houses visited by the disease. It was impossible to isolate cases in a great city like Chicago; and the people in general revolted against the yellow-card nuisance.

The result of the law compelling the display of cards, was that not less than half the cases were not reported. The family either did not call in a physician, or called in some quack who would not report the case. In consequence of this

course the disease was still further spread and the mortality increasing. The cost of the cards and tacks would publish, in pamphlet-form, such information as would vastly reduce the danger. The masses should be enlightened and their prejudices overcome, rather than attempts be made to coerce or drive them to certain useless measures. Other strictures were made on the conduct of the health officials in general.

Dr. Folsom, at the close of the reading, deprecated such discussions as the paper must necessarily lead to, on the ground that it was running too much to personalities. He did not think the paper a proper one for the association to spend time listening to, and hoped that in future the executive committee would look over the papers, and, by suppressing all matters relating to local troubles, encourage a higher order of discussion.

Dr. Kearney, health officer of Cincinnati, said a few words in a similar strain, and hoped there would be no discussion.

AFTERNOON SESSION.

Dr. Azel Ames, Jr., of Boston, on "The Removal and Utilization of Domestic Excreta." The writer held that out of all the methods proposed for removing the human excreta, none had paid sufficient attention to the utilization of the product. The questions to be met were the speedy, inoffensive, and economical removal of the human excreta, and the best means of rendering it profitable. The different systems were discussed, as the vault system, the water-closet system, the pail system, and the pneumatic system, each having its advocates. The vault system, as used in isolated houses and country towns, was offensive and in many cases dangerous. The earth closet system offered many advantages, but could hardly be made to work in large cities. The water system was perfect as far as inoffensive and speedy removal was concerned, but, unless by irrigation, it was impossible to use the sewerage. The pail system was in use in China, and consisted in the daily removal of the excreta, but was expensive, offensive, and open to many objections. The pneumatic system, as first made use of by Capt. Charles Liernur, consisted in theory of a tank at a street

corner or other convenient place, connected by tubes with the closets in the several houses. By means of a portable engine a vacuum is formed in the tank, the consequent pressure drawing the substance from the house to the tank, from which it is then removed and utilized. This system was further improved by the inventor, by connecting the street corner tanks with a larger tank at the central works. By pumping the air from the tank a vacuum was formed, and this in turn forming vacuums in the smaller tanks, the result was that the excreta were thus collected by pneumatic pressure. From the main tank the substance was treated with sulphuric acid or some other deodorizer, and made to pass over a drum heated by steam and revolving in a superheated atmosphere. This reduced the substance to a powder, when it was ready for shipment in barrels. This system had been found practicable, and was in successful operation in Amsterdam, and one or two other European cities, the prepared powder being found of sufficient value to pay all the running expenses, and provide a sinking fund toward the repayment of the first cost. This method in successful operation seemed to meet all the requirements, for a perfect system. The question to be met at present was how to render least offensive and least objectionable the vault system, as this is the one in almost general use outside of large cities. The ordinary methods of cleaning the privy vaults by night scavengers was too disagreeable and disgusting to be tolerated. To meet this objection a number of patent appliances had been introduced, all of which were discussed by the author. Some of them, he said, were positively dangerous, and in some instances had exploded in the attempt to confine the gases. A machine similar in the operating principle to the Liernur pneumatic process, seemed to meet the approval of the author. In conclusion, he held that no system could be called a success unless it provided for a utilization of the excreta, and their return to the soil in the shape of a fertilizer.

Dr. N. S. Davis had prepared a paper on "The Means of Diminishing Infant Mortality from Bowel Affections." The doctor spoke of the causes of bowel affections, which, in gen-

eral terms, might be stated as the result of the high temperature of the hot summer nights. It might also be affected by the presence or absence of ozone, or by electrical conditions, but he believed the principal cause to be the hot nights and the absence of proper ventilation. A high temperature during the day was not so productive of complaints as the continuous heat during the night. It was well known that nearly all bowel affections, including cholera, first affected the patient in the hours between midnight and morning. The heat being the cause, what should be done by way of remedy? Floating hospitals and country air were well enough in their way, but all could not avail themselves of these advantages. The next best thing to be done was to secure all the ventilation possible and, by a cool bath before putting the child to bed, to reduce, the temperature of the body and quiet the nerves of the bowels. A wet towel around the child's body was also in many cases productive of a great deal of good. By proper attention to these simple appliances, during the prevalence of a heated term, the infant mortality may be reduced at least one-half.

Dr. Hamill, physician in charge of the Floating hospital, gave his testimony to corroborate the positions taken by Dr. Davis. He had seen children who on shore were oppressed and almost exhausted, revive even on the trip from the shore to the hospital boat, and on reaching the boat sink into a quiet and refreshing slumber.

Dr. Lyman's experience was similar, and he considered that a little attention to the cause, and some simple precautions like those suggested by Dr. Davis, would be of great benefit to the children.

In answer to a question by Dr. E. W. Gray as to observations on the temperature of the blood, Dr. Davis again spoke of the effect of heat on the system. When the air is so heated and rarefied, the child's lungs are too small to take a sufficient quantity to supply the body with oxygen.

The child, therefore, is soon prostrated with exhaustion, and a relaxation of the nerve centres ensues, acting most strongly on the bowels.

Dr. Turner said that children were largely fed on artificial

food and not the mother's milk. When cow's milk was used it was sometimes watered, and other substances were added to it with a view of rendering it more like the natural food. Indeed he had met with numerous cases where the child actually died of starvation. He had always advocated plenty of pure cow's milk, and met with good results.

Several other members gave expression to their views, but nothing additional was elicited.

"A Report and Discussion upon the Experience of the Department of Physical Education and Hygiene of Amherst College," was the subject of a paper by Prof. E. Hitchcock, of Amherst, Mass., and was read, in the absence of the author, by Mr. John Woodbridge. The paper was a detailed description of the buildings and apparatus in use in Amherst college, with some observations as to the results of the system of physical education on the students. The department is in charge of a professor, and a regular routine of exercises is carried out, the attendance of the students being made obligatory. The description was tedious and uninteresting to any but an Amherst man, and had the effect of rapidly thinning out the audience.

Dr. Coan, of Quincy, read a short paper on the relative amount of physical culture required for male and female students. The doctor seemed to think that the girls were fully as capable, physically, of pursuing a college course as the boys.

The meeting adjourned.

EVENING SESSION.

The meeting was called to order at 8 o'clock, Dr. Ingals, of Chicago, presiding. The first paper was "A Statement and Discussion of the Sanitary and Economical Importance of the best Medical and Surgical Treatment of the Needy Poor," by Dr. Edmund Andrews, of Chicago. The doctor argued in favor of prompt and efficient surgical or medical aid to the poor, on the ground that it was much more economical for society to furnish a surgeon, and even mechanical appliances in case of accident, than to have the unfortunate man a permanent

charge on the public as a pauper. He held that the cost of supporting him as a pauper was not to be reckoned in comparison with the loss of the man himself to society. He instanced cases of rupture, for example, where a trifling expense would furnish a truss, whereby the man could return to his accustomed work and not be obliged to spend the balance of his life as a helpless pauper. Other examples of a similar character were given, showing what an extent of suffering and misery could be prevented by a well-directed public movement to aid men who meet with serious accidents while at their work, and who are utterly unable to secure the proper treatment for themselves. It was a disgrace, he said, that deformed and crippled creatures should be allowed to walk the streets when a proper treatment in the beginning would have restored them to health and usefulness.

Dr. Chancellor, of the State board of health of Maryland, was called on for his views, and said that he was strongly in favor not only of surgical treatment, but also of medical aid in case of sickness in their families. He had given particular attention to this subject, and had made reports on the condition of some of the charitable institutions in his own State. The workingman was often driven to ask for aid by sickness or death in his family. The feeling of shame was thus overcome, and he was liable to become a voluntary pauper. By furnishing medical aid at, perhaps, a nominal cost, and so preserving the feeling of independence, the man would be truly benefited and society be the gainer.

Dr. Harris, the secretary, made some remarks on the same subject, and offered the following:

Whereas, Public attention is being urgently invited to the duty of adopting measures for repressing and preventing pauperism; and,

Whereas, There are causes of bodily disabilities which induce dependence and the entailment of pauperism, resulting from the neglect and incompetence of the attendance and medical sanitary care received by the needy poor when such care should be given:

Resolved, That in the judgment of this association, the official inspection and inquiry for ascertaining and repressing the cause of bodily disabilities and pauperism, is an important

public service in the interests of hygiene and the public welfare, and that those interested require that this duty should be continued with faithfulness, and the results be published widely for the information of the public.

The next paper was by Dr. Henry M. Lyman, of Chicago, on "The Present State of Exact Knowledge of Causation and Prevention of Epidemic Diseases." The doctor first called attention to the difference between poisons and infectious substances. Snake bites were examples of poisons, while the bite of a rabid dog was an illustration of the latter. The real difference between a poison and an infection-virus was that in the case of poisoning the effect was dependent upon the amount of the matter injected, it having no power of reproduction, while a virus was endowed with the power of self-multiplication, and soon extended over the whole body. Hydrocyanic acid, nettle juice, and the venom of a copperhead, may be accepted as types of poison, while the fluids of the dissecting-room, the lymph of a vaccine vesicle, and the exhalations of measles, furnish illustrations of the nature of an infectious substance. By one or the other of these modes nearly all epidemic diseases are communicated. The paper gave numerous illustrations explaining his meaning, and showing how the different infectious diseases may be communicated. The action of the infecting substance, in the same classes of epidemics, is not as yet fully understood, and was a topic calling for careful study and investigation. In some cases a family, or even a community, may be so inoculated with poisonous virus of a milder form, as to be predisposed to the ravages of a dangerous epidemic. The paper treated at length of the different epidemic diseases in detail, showing how mistakes were liable to arise in looking for the true causes of the spread of the contagion.

Rev. Brooke Herford then delivered an address on the subject of "Public Health and Public Holidays." He said that some of the English writers had complained that life in England was run on a high pressure. If this was true in England, how much more could it be said of this country.

The business in this country was run at a racing speed, and was a terrible strain on the mind and body. No rest was al-

lowed night or day. Men were at their desks at seven o'clock in the morning and remained till after midnight. It used to be said that every French soldier carried a field-marshal's baton in his knapsack; and it might be said that every clerk or office boy saw himself in the future a Tweed or a Stewart. Men by such constant application lost all taste for leisure, and could do nothing but drive along. They will tell you that they cannot possibly leave their business; and in a few years a broken-down, prematurely-old man, who trembles at every noise, is all that is left of the once vigorous worker. In England the case was different. Holidays are far more numerous, and are better observed. Easter-time, Good-Friday, Whitsuntide, besides the week's holiday at Christmas-time, were universally observed, to say nothing of the Queen's birthday and anniversary days. In this country there were hardly four holidays observed in the year, and these only partially. It has been said that an American with a holiday is the most miserable being on earth. This was in a measure true. The business man had no idea of spending time for culture, and wanted to carry his business into everything. The Englishman, on the contrary, seized upon every possible occasion for the laying aside of his business cares and giving himself up to pleasure.

The speaker pointed out the inevitable results to the health and strength, of these two courses, showing the advantage strongly in favor of the Englishman. In conclusion, he spoke of the movement in England for a Saturday half-holiday, which had succeeded in the busy city of Manchester and other English towns, and expressed a hope that this movement would be taken up here and carried through to a similar success.

The address, which was an eloquent and interesting one, was received with frequent applause. A vote of thanks was tendered for the paper, and it was ordered to be printed with the proceedings of the Association.

Thursday, September 27th—Third Day.

MORNING SESSION.

The meeting was opened by Dr. DeWolf, Health Commis-

sioner of Chicago, with a paper on the "Destruction of Offensive Gases from Rendering Tanks and Fertilizing Establishments." The doctor spoke of the importance and the difficulty of meeting this problem. There were three hundred thousand beeves and three million two hundred thousand hogs slaughtered in and around this city last year. Each beef produced from fifty to sixty pounds of offal, and each hog, from twenty to thirty pounds. This gave some idea of the magnitude of the nuisance-producing business. He then gave a description of the rendering-tanks in which every thing of an offal nature was collected and subjected to a steam pressure. It was the gases from these tanks which caused the trouble. There were two hundred and forty-two of these rendering vats, and the gases were formerly all allowed to escape into the open air. The various means proposed for condensing and destroying these gases were explained at length.

He spoke of the catch-basin which had been introduced, by which about twenty tons of solid animal matter, which was formerly conveyed into the river through the sewers, was now collected and utilized. He referred, in closing, to the recent scarlet fever epidemic, and of the attempts made to arrest and quarantine the disease, as well as the probable effect of the poisonous gases alluded to, on the sanitary condition of the city.

Dr. Folsom, of Boston, made some remarks on the subject of the paper, and thought that it was absolutely necessary to subject the offal to the condensing process while it was perfectly fresh. He also spoke of the scarlet fever question, and this led to remarks by other gentlemen present, Dr. DeWolf making the statement that the number of scarlet fever cases had been as great in the best wards as in the worst, as shown by the reports of the Board of Health, but that the death rate was materially modified by the good sanitary condition of the wards.

Dr. Johnson agreed with the last speaker. His experience was that the local sanitary conditions had little or no effect in preventing the spread of the disease, although it certainly had an influence on the rate of mortality. Considering all the

difficulties to be encountered, the city had reason to congratulate itself on its sanitary condition. The attempt to regulate the stench-producing establishments on the southwest border of the city, had been found almost impossible. People living in the immediate neighborhoods of these places, would come forward and swear that they were the most healthy places in the world. The doctor accounted for this on the principle that the internal conditions of the body adapted themselves to the external conditions. When the dry southwest winds came over these places, they gathered up the gases and carried them over the city until a cooler, moist current of air was encountered near the lake, and the poisonous gases deposited on the inhabitants. The warfare against these stench-producing establishments must be kept up until the evil was overcome.

This closed the discussion, and the auditing committee reported that the affairs of the treasurer and secretary had been examined and the reports of those officers found to be correct.

The election of officers for the ensuing year, which followed, resulted as follows: President. Dr. Elisha Harris, Health Commissioner of New York; First Vice-President, Dr. J. L. Cabell, President State Board of Health, University of Virginia, Charlotteville; Second Vice-President. Dr. Hosmer A. Johnson, Chicago; Secretary, Dr. R. H. James, Secretary New York Board of Health; Treasurer, Dr. Charles F. Folsom, Secretary State Board of Health, Boston, Mass.; Executive Committee, Dr. John H. Rauch, President State Board of Health, Chicago, Ill.; Dr. C. B. White, ex-President State Board of Health, New Orleans, La.; Dr. C. W. Chancellor, Secretary State Board of Health, Maryland; Dr. J. T. Reeve, Secretary State Board of Health, Appleton, Wis.; Dr. C. N. Hewitt, Secretary State Board of Health, Red Wing, Minn.; Dr. Thomas J. Turner, Medical Inspector United States Navy, Washington, D. C.

AFTERNOON SESSION.

The first paper read was by Dr. Elisha Harris, of New York, on "The Statement on the Outlines of a Plan for Securing Uniformity and Completeness in the Registration of Vital Statistics and Prevalent Diseases."

The paper gave some of the methods in use in New York, Boston, and other of the eastern cities. The object of the paper was to prove the necessity of some national movement looking to a complete compilation and record of all facts bearing on the subject of vital statistics. On motion of Dr. Hewitt, the subject matter and the recommendation of the paper were referred to the several boards of health.

The Secretary then called attention to a number of papers in his hand on different subjects, which there was not time to read. All of these papers were referred to the publishing committee.

Dr. Charles N. Hewitt, Secretary of the State Board of Health, Minnesota, read an interesting paper on "The Relation of Hygiene to Lower Education." The paper took the ground that a study of the principles of hygiene was worthy of more attention in the common schools than the study of physiology as ordinarily pursued. A child should be taught what to do in cases of sudden sickness or accidents, and how to preserve health rather than have his brains crammed with the physiological names of the different bones and tissues of the body. The lower classes must be reached, and for this end the family physician must lend his aid by personal advice and the distribution of small tracts on hygienic topics.

The newspapers should also be made use of to disseminate the information, and a good work could be done in the Sunday schools. He also urged the value for this purpose of suitable text-books, which should be prepared for use in the common schools, instead of the worthless physiologies.

The Secretary then mentioned the fact that an association like to the present was in session in Nuremburg, Germany. The order of business laid out for the German fellow-workers was read, the programme extending over three days. An invitation for an exchange of publications was accepted on motion of the Secretary.

Dr. Chancellor moved that the customary thanks be extended to the proprietors of the Grand Pacific, the newspapers, Mayor Heath, and the citizens of Chicago in general, for kindness and courtesy shown to the Association.

The time and place for holding the next annual convention were referred to the executive committee, with the recommendation that the meeting be held a little earlier in the season.

The resignation of Dr. Charles F. Folsom, treasurer elect, was accepted at his earnest request, and Dr. H. B. Baker, Secretary of the State Board of Health, Lansing, Mich., was elected to the position.

After a vote of thanks to the retiring officers of the Association, and some remarks by the Secretary, the convention was declared adjourned *sine die*.

The next meeting of the Association will be held at White Sulphur Springs, Va., during next August.

BOOKS AND PAMPHLETS RECEIVED.

The Practitioner's Reference Book. Adapted to the use of the Physician, the Pharmacist and the Student. By Richard Dunglison, M. D. Lindsay and Blakiston. Philadelphia. Price $3.50.

Fat and Blood, and how to make them. By S. Weir Mitchell, M. D. J. B. Lippincott & Co. Philadelphia. Price $1.25.

Some General Ideas Concerning Medical Reform. By David Hunt, M. D. A. Williams & Co. Boston.

An Index of Diseases and their Treatment. By Thomas Hawkes Tanner, M. D., F. R. S. Second edition, by M. H. Broadbent, M. D. Philadelphia: Lindsay & Blakiston. Price $3.00

Personal Appearance and the Culture of Beauty, with hints as to character. By T. S. Sozinskey, M.D., Ph. D. Allen, Lane & Scott. Philadelphia.

Transactions of the College of Physicians of Philadelphia. Third series. Vol. III. Lindsay & Blakiston. Philadelphia. 1877.

Transactions of the Kentucky State Medical Society, 1877. John P. Morton & Co. Louisville.

Pathology and Treatment of Sprains. By Richard O. Cowling, A. M., M. D.

Maternal Impressions. By Thomas Waddel, M. D.

Thirty-fourth Annual Report of the Managers of the State Lunatic Asylum, Utica, N. Y., for the year 1876.

Analysis of Seven Hundred and Seventy-four Cases of Skin Disease, Treated at the Demilt Dispensary during the year 1877. With Cases and Remarks on Treatment. By L. D. Bulkley, A. M., M. D.

The Use of Obstetric Forceps in abbreviating the second stage of labor. By Edward S. Dunster, M. D.

Announcement of the Chicago College of Pharmacy, Eleventh Annual Session. October 1, 1877 to February 28, 1878.

The Strumous Element in the Etiology of Joint Disease. From an analysis of eight hundred and sixty cases. By V. P. Gibney, M. D., etc.

The Proceedings of the Medical Society of the County of Kings, Brooklyn, N. Y., August, 1877.

Case of Aneurism of the Hepatic Artery, with Multiple Abscesses of the Liver. By George Ross, A. M., M. D., and William Osler, M. D., L. R. C. P., London.

Excision of the Lower End of the Rectum in Case of Cancer. By John B. Roberts, M. D.

Contributions to the Treatment of Pulmonary Phthisis. By D. W. Gleitsmann, M. D.

Aiken as a Health Resort. By W. H. Geddings, M. D. Aiken, S. C.

Morphia in Child-birth. By W. T. Lusk, M. D. New York.

The Relations Existing between Eczema and Psoriasis. By Robert Campbell, M. D. New York.

The Toner Lectures. Lecture V. On Surgeal Complications and sequels of the continued fevers. By William W. Keen, M. D., of Philadelphia.

Nurse and Patient and Camp Cure. By S. Weir Mitchell, M. D.

Physician's Visiting List for 1878. Lindsay & Blakiston. Philadelphia.

Transactions of the Medical Association of the State of Alabama. Thirtieth session. 1877.

Retarded Dilatation of the os uteri in labor. By Albert H. Smith, M. D. Philadelphia.

Maternal Impressions. By Thomas Waddel, M. D.

Treatment of Old Dislocations of the Shoulder by subcutaneous section of the humerus and the formation of a false joint. By J. Ewing Mears, M. D.

Correspondence.

How to Disguise the Bitter Taste of Quinine.

To the Editor of the Journal and Examiner.

Some substance which would effectually disguise the taste of quinine and other bitter medicines, has been a great desideratum. Such a substance has been found in glycyrrhizine, which is merely the sweet principle of liquorice, rendered soluble by ammonia. An elixir containing this substance has been used, which is prepared according to the following formula:

℞ Powdered coriander, Powdered caraway, ... aa. gr. cviij
Powdered cinnamon, ... gr. xciij
Powdered star anise, Powdered tonqua, ... aa. gr. lxij
Powdered canilla, Powdered nutmegs, Powdered cloves, . . . aa. gr. xxxj
Ammoniacal glycyrrhizine, . . ℥j gr.cxl
Oil of orange, fresh, ... gr. xxxi
Alcohol, ... f℥ xvj
Water, ... f℥ xvj
Syrup, ... f℥ xlviij

The aromatics are placed in a percolator and exhausted with a menstruum composed of the oil of orange, alcohol and water; the percolate is mixed with the syrup, the glycyrrhizine, dissolved in a small quantity of boiling water, is mixed with the liquid, and water added to make the whole mixture five pints.

The method of using the elixir is to pour out a small quan-

tity, say a dessert-spoonful, add the quinine in powder, mix and swallow, and then follow with a small quantity of the elixir.

This prescription is complex, cannot be prepared extemporaneously, will mask only a small quantity of the quinine, and offers no advantages over the glycyrrhizine in substance. If a small quantity of glycyrrhizine be taken in the mouth, quinine can be taken afterwards without perceiving the slightest bitter taste, the drug is masked perfectly, it is as tasteless as chalk, and not nearly so disagreeable to take; nor does any disagreeable taste return in the mouth. A very large dose of quinine may be covered in this way.

It is a very great convenience to combine the substances so that they may be given in one dose. This may be accomplished by suspending the quinine in a solution of the glycyrrhizine. A grain of glycyrrhizine will cover the taste of a grain of quinine, and two grains of glycyrrhizine will dissolve in a drachm of syrup. I usually make a mixture, consisting of fifteen grains each of glycyrrhizine and sulphate of quinine, in an ounce of simple syrup. This mixture will give nearly two grains of quinine to the drachm, and in it the taste of the quinine is almost perfectly disguised; there is a slight trace of bitter, but it is not at all disagreeable, and leaves the mouth in a short time. This mixture is a tolerably permanent one; the quinine will not settle to the bottom for two or three days, and when it does settle, it may be shaken up and used nearly as well as though freshly prepared.

Children and fussy women take this mixture not only without objecting, they even like it.

If it is desired to use a larger proportion of quinine to the ounce, the syrup must be mixed with water in order to dissolve the larger quantity of glycyrrhizine necessary to cover it. I have used as much as thirty grains of quinine to the ounce of the mixture, giving nearly four grains to the drachm. The disguise, however, is not as complete as in the other mixture; and, as a considerable quantity of water must be used, the quinine is not held in suspension as well.

Lester Curtis, M. D.

806 Wabash Avenue.

MEDICAL NEWS AND ITEMS.

Reduced Prices of Medical Books.—*Lindsay and Blakiston*, publishers, announce that they have made very considerable reduction in the prices of many of their medical books to suit the times.

Dr. Vidal, physician at Jokoska, Japan, writes that, according to the formulæ of speech of the Japanese patients, a treasure would not suffice to pay the advice of so great a sage as the educated physician, wherefore the Japanese content themselves with not paying him for his services, but only allotting a few pence for medicine and the expenses of the visit; a sum so insignificant that more often the European physician would feel insulted by its being offered, and therefore contents himself with the profuse compliments of his clients. On the whole he does not consider a Japanese *clientéle* profitable; and, if cultivated at all, it could only be accepted as a supplement to a practice among the resident Europeans.

A Parisian pharmaceutist received the following homœopathic prescription to be dispensed:

Lact. mammel. virgin, (milk from a virgin's breast) - -	30 c. c.
Aq. stil. (aquæ distil.) - -	150 c. c.
Alc. (alcohol) - - -	q. s.
F. S. A. Dr. T.	

We have just received a copy of the Eleventh Annual Announcement of the Chicago College of Pharmacy, and we are glad to congratulate the pharmacists on their evident indication of prosperity. The announcement itself is a decided improvement on its predecessors, and shows clearly that the executive committee are zealously working for the perfection of their particular branch of the department of medicine. One special feature in this year's announcement is the removal

of the college to the North-west corner of Jackson and Wabash. In this central location the committee have secured a well lighted and well ventilated hall, which, instead of damping the courage of the most ardent student, as their other hall must have done, will contribute greatly towards rendering the lectures a pleasure and profit to all concerned. Attached to the lecture hall is abundant accommodation for laboratory, library and instrument rooms, and we have no doubt that the several committees appointed to superintend these departments will see that they are in keeping with the advance movement which the general committee has made.

We are of the opinion that many of our young men studying medicine would do well to take a course in pharmacy before commencing the study of medicine proper. It will not be denied that the more intimately we are acquainted with the agents we employ, the more skillfully are we able to adapt their various properties; and those properties can only become familiar to us by a prolonged and intimate association.

The college opens on the first of October. T.

Report on the Chicago Floating Hospital for the season 1877. By Wm. Rutter, M. D., physician to the hospital. The floating hospital which was announced to be opened upon the advent of hot weather, has, after a period of great usefulness, been discontinued for this season, having, as in previous seasons, proved a marked success in the purpose for which it was opened, viz.: To afford convalescent and otherwise sick women and children, an opportunity of enjoying the most needful and efficient restorative agent—"pure air," such being hardly accessible to the well-to-do in a large city like Chicago, and much less so to the poor and needy who are of necessity crowded together in close apartments, on narrow and poorly drained streets. As a rule, the patients who responded to the kind and urgent invitations extended from time to time to all by the directors, attest to the benefit derived from a sojourn on the ship. Thus, while in many instances proving a valuable aid to the efforts of the family physician, these "fresh air baths," as the visit to the hopital-ship may

properly be termed, have undoubtedly hastened convalescence and counteracted the morbid influences extant in the city during the hot season. It may here be stated that this institution, whose privileges were free to all, was maintained solely by charitable contributions, and it is alone due to the general depression in trade that the period of its usefulness, to the regret of its hearty supporters and numerous friends, could not be extended over a greater length of time. But it will be seen by the figures below, that the attendance during its existence of six weeks was, nevertheless, quite large.

There attended during the season — 2,234 adults, 3,947 children—total, 6,190. Average for each day, 206⅓.

The thermometer ranged throughout the season on board the ship, as follows:

The indications taken down at 10, 12, 2 and 4 o'clock show the average for each day.

July 16th	78°	Aug. 2d	76°
" 17th	82°	" 3d	75°
" 18th	79°	" 6th	77°
" 19th	66°	" 7th	80°
" 20th	58°	" 8th	79°
" 23rd	76°	" 9th	76°
" 24th	81°	" 10th	77°
" 25th	84°	" 13th	70°
" 26th	76°	" 14th	70°
" 27th	80°	" 15th	71°
" 30th	77°	" 16th	77°
" 31st	80°	" 17th	79°
Aug. 1st	80°		

Summary.

I. Dermatology and Syphilis.

Psoriasis of the Hairy Scalp.—Lailler. (*La France Médicale.* Aug. 29, 1877. P. 546. No. 69.—Psoriasis occurring upon the scalp is characterized by the occurrence of patches of limited contour, clearly defined, and not discharging, as a rule, unless scratching has been induced by itching. The scalp is thickened, and the scales are dull and white in color and very adherent. In the large majority of cases there is no alopecia; the eruption often extends to the forehead, and sometimes to the ears.

Psoriasis of the scalp may be confounded with eczema, but in the latter disease, the eruption is more diffused, and the discharge is abundant. When eczema is in the pityriasic stage, the diagnosis must be established with caution. Apart from the aspect of the scaliness (in addition to other points of distinction which are to be remembered) it must be admitted that in certain cases it is difficult to pronounce as to the disease. The elbows and knees should be carefully inspected, and the diagnosis of psoriasis always be established, if in these localities are a few small patches to be discovered covered with white, dry and nacreous scales.

Impetigo can readily be distinguished from psoriasis by the color and character of its crusts, which are more elevated, yellowish and less dry. The presence of pustules is also significant.

As regards syphilis, when the crusts fall, ulcerations become visible, which are followed by cicatrices and alopecia.

When favus is distinctly present, there is no need of doubt, as the presence of the favus crusts is sufficient to clear up the case. But when the latter are absent, one might be disposed to call the disease psoriasis. In such cases, it should be re-

membered that the favus crusts are yellowish, the patch is more clearly defined and more reddened, the hairs are scanty, decolorized and rendered more like lanugo; cicatricial patches can often be seen.

In pityriasis, the eruption is diffused, does not present the elevated patches of psoriasis, the scalp is not thickened, and the scales are fine and furfuraceous.

Pityriasis rubra universalis. — Dr. Hans Hebra.— *Vierteljahresschr. f. Dermatol. & Syph.* III., 4).—In July, 1873, an Italian, aged 38 years, was admitted to the Vienna hospital, with pityriasis rubra universalis. He remained there three years and six months, and during this time, he was subjected to a number of therapeutic experiments, none of which, however, could make the slightest impression on the cutaneous disease.

When eight years old, the patient had the small-pox, after which his skin would always become exceedingly red in a warm temperature, and be very livid in cold air; it has never since been normal, but gradually acquired a deep red hue. Yet he was robust and could work, until two years previous to admission to the hospital. At that time he had to stop work, because the tension of the skin, which seemed contracted, impeded the free motions of the limbs. About that time he noticed the first formation of scales on his legs; eight months later, the whole body was covered with epidermic scales, and the hair of the scalp, whiskers and the pubes fell out. On admission, this was the patient's condition; the integument of the whole body was exceedingly tight, partly red, partly livid, the epidermis shedding in larger and smaller scales, in some places matted together, especially on the face. Both lower lids were everted by the shrinkage of the facial skin. Face and scalp were absolutely bald, and all over the body the growth of hair is greatly reduced. Patient is emaciated and feeble, though his appetite, digestion and sleep are good.

The only change which occurred in the patient's external appearance, while in the hospital, was a progressive discolora-

tion of the skin, the red color passing over into a brown red tint, and an ultimate total alopecia.

In March, 1874, while the patient was laboring under an acute pneumonia, his integument improved remarkably; but as soon as he felt better, the cutaneous affection became again aggravated. He finally died of pulmonary and visceral tuberculosis, March 2, 1876, having spent 1,324 days in the hospital. During this time, he was the object of many experiments. Each remedy was tried one hundred days, unless an aggravation of the disease necessitated its entire discontinuance. Externally were used cod-liver oil, warm baths, benzoin, rubber cloth, ung. hydr. ox. albi. and ung. diachyli. The use of benzoin had to be stopped after three weeks, because it increased the dryness and tension of the skin to an unbearable degree. The other remedies had a soothing influence, making the skin softer and more pliable, but that was all. On the hyperæmia and desquamation their effect was nil.

Shortly after his admission the patient was dosed with arsenic. Taking one pill, containing 1-10 grain arsenic, three times daily, he swallowed 2,000 pills, or 200 grains of arsenic, in the year 1872, and two years later he went through the same course of treatment, so that in all he took 4000 *pills containing* 400 *grains of arsenic.* His appetite, digestion, and sleep were not disturbed by this treatment, but the pityriasis was not affected by it.

The autopsy confirmed the diagnosis of pulmonary and intestinal tuberculosis, but as to the cutaneous affection, it did not clear up its mysterious character.

The microscopic examination of pieces of the integument showed a chronic inflammatory infiltration of the skin. All its structures were infiltrated with cells in a state of rapid generation. Immediately under the very thick epidermis this proliferation was at its height ; no sweat-gland or hair follicle could be detected in all the preparations. The whole picture gave the impression of a recent scar covered by epidermis.

White Sand for Skin Diseases.—L. Ellinger. (*Wiener Med. Wochenschr.* 1876, No. 45.)—Acne, comedones, acne

rosacea, freckles, prurigo, and other cutaneous diseases are treated by E. with fine white sand, such as is used for scrubbing floors. The sand must be of the right fineness, and not commingled with any coarse grains, nor too much dust. In facial eruptions the skin is washed with soap and water and kept constantly moistened for half an hour; then the affected spots are scrubbed with the moist sand, and the skin cleaned off again with a sponge or a brush. This procedure is repeated every evening.

In circumscribed cutaneous affections of the extremities, or the trunk, the affected part may be wrapped up in water dressing over night, the scrubbing to be done in the morning. If the disease extends over a larger surface, a full bath of one hour must precede the use of the sand.

The writer has been greatly pleased with the results of this treatment, the more so as he did not make any change in the patients' mode of living nor administer any medicine. He considers this method superior to the usual treatment of chronic skin diseases (with soft soap, tar, carbolic acid, etc.,) inasmuch as it has no disagreeable odor; does not keep the patient from business, and is a cheap and speedy cure.

Effect of Water on the Skin in Health and Disease.—Prof. Hebra.—(*Wiener Med. Worchenschr.* No. 132, 1877.) Prof. H., summing up his experience of the effect of the application of water upon the skin, arrives at the following conclusions: water exercises upon the skin a considerable degree of irritation, which may produce morbid symptoms, but also remove existing anomalies in the cutaneous tissues.

It is not the temperature but the macerating and irritating property of the water, that plays the principal part in its employment. As to the temperature of fomentations, ablutions, and baths, this should always be regulated by the feelings of the patient.

Ablutions of the whole body, or full baths—warm or cold—are entirely ineffective as a prophylactic measure against the outbreak of diseases of internal organs, but they often create diseases of the integument.

Baths taken for the treatment of cutaneous diseases must

always be of a prolonged duration, in order to be useful; they should never be shorter than one hour at least; and warm baths may be continued without harm uninterruptedly day and night during several months.

Arterial Lesions Produced by Syphilis.—Lancereaux. (*Le Progrès Med., Sept.* 1, 1877, *No.* 35, *p.* 676).—Such lesions are much more common than is generally believed to be the case, and they present the peculiarity of affecting especially the encephalic arteries. The sites of predilection are the vertebral arteries, the basilar axis, and the sylvian arteries, and the anatomical feature of these syphilitic alterations, is their circumscription. Thus the islets of arteritis scarcely measure more than one to ten centimetres in length, and rarely attain that dimension. The commencement of the process is in the internal tunic of the arteries, non-vascular tissue. There a slight elevation occurs, a species of pustule forms like the primary patch of atheroma. When these little tumors open into the lumen of the vessel, cavities result which become small aneurisms. (Several plates portraying these lesions were exhibited to the Medical Section of the *Association francaise pour l'avancement des Sciences* by M. Lancereaux.)

There are cases where these aneurisms undergo a species of development; in others, a real arterial obliteration occurs. How are these lesions to be distinguished from atheroma, which they so much resemble? Several points of distinction are given. 1. The subject is syphilitic. 2. Atheroma is specially developed in the large arteries, the aorta, the splenic mesenteric and renal arteries, while the alterations produced by syphilitic arteritis affect chiefly the arteries of the encephalon. 3. The subject is, as a rule, young, while atheroma is a disease of the aged. 4. Finally, it is not rare to note a certain degree of symmetry in the lesions. The author concludes with a study of the symptoms of syphilitic arteritis, and the means by which it can be clinically recognized from atheroma and embolism. In embolism the phenomena are immediate; in syphilitic arteritis they are slow of development and preceded by prodromata, cephalalgia and insomnia. These phenomena, it is true, also accompany atheroma, but here the age

of the patient is an aid in coming to a decision. Since atheroma is a disease of the aged, and syphilitic arteritis of the young, it becomes highly probable that when the encephalic arteries are affected with atheroma, those of the limbs will be also. Lancereaux claims that he has made a diagnosis of syphilitic arteritis in the living by these symptoms alone. The disorder is grave, the prognosis serious. In the emergency no delay should be had: large doses of iodide of potassium and abundant mercurial inunctions should be employed.

The Abortive Treatment of Syphilis.—G. E. Weisflog. (*Virchow's Arch. Bd. 69; Allg. Med. Centralztg*).—A few years ago, W. discovered the remarkable fact that a watery solution of the hydrargyrum nitricum oxydulatum injected under the skin never causes suppuration unless the tissues are in an inflamed state; but where the tissues are in a state of irritation or inflammation, an abscess will always follow such hypodermic injection. This property of the hydrarg. nitric. oxydulatum can be successfully employed to check the propagation of the syphilitic virus on its way from the original primary sore to the inguinal glands. In all suspicious cases, therefore, he begins the local treatment with an hypodermic injection into the region between the genitals and the inguinal glands. If these, or the lymphatic vessels leading to them, are not already in a state of irritation or inflammation, no suppuration will take place; nevertheless no constitutional syphilis will follow, provided that the subcutaneous injections be repeated every tenth day until the primary ulcer is perfectly cured and its induration completely removed. But if at the time the injection is made, the lymphatic vessels or glands are already in a state of irritation or inflammation, an abscess will be formed whose contents have a characteristic chocolate color. These abscesses very seldom give rise to any violent symptoms, and heal very quickly. They have never been followed by constitutional syphilis.

He has practiced this abortive treatment the past five years, and from 1820 to 1872 treated 32 cases of undoubted indurated chancre; the injections caused the formation of an abscess on

both sides in 14 cases, and on one side in six cases. Though at that time he felt positively certain that his patients had nothing to apprehend in the future, he has tried, within the last six months, to ascertain, by letter or personal interview, whether the expectations had been verified. He obtained news from 28 former patients—they all remained free from any affection which could be recognized as a sequela of the local infection; twelve of them had married, and their offspring did not show any symptoms of inherited syphilis.

Although the author is willing to admit that there is no conclusive proof in so small a number of cases, he is confident that a conscientious trial by others will confirm his experience. Mercury is most efficient as an anti-syphilitic, if brought in direct contact with the virus in the affected tissues; and the hypodermic injection is the simplest method of saturating with the metal those tissues which the syphilitic virus must pass, on its way from the chancre to the glands. It is very probable, therefore, that other remedies known to antagonize the virus of the primary ulcer may be employed for the hypodermic treatment with success; but the author had no occasion for experimenting on this point, inasmuch as the watery solution of the hydrarg. nitric. oxydulatum possessed every property that could be desired for the purpose. It is a mild and durable solution.

Syphilis Treated by Subcutaneous Injections of Calomel. —Kœlliker. (*Centralbl. f. Chir.* 1877, *p.* 97).—During 1875 and 1876 the syphilitic patients in the hospital at Wurzburg were treated by hypodermic injections of calomel (3,0) suspended in glycerine (30,0). The dose of calomel injected was 0,05 for an adult, and 0,025 for children. The injections, made with an ordinary hypodermic syringe, were repeated every tenth day at first; later, every fifth day. The mode of treatment is easy, does not disturb the nutrition of the patient, and permits of the dose of mercury administered being accurately measured. But it shares with other hypodermic methods the unpleasant feature of the very frequent occurrence of abscesses at the punctures.

II. Therapeutics.

On the State of Therapeutics in Tetanus.—(*Practitioner*, Aug. 1877.) The ancient treatment of tetanus was only palliative, and it was unsuccessful. Modern medicine is armed with a sheaf of weapons which the ancients did not possess; and although yet in despair for a specific, it has so far arrived at such complete alleviation, as often to bring cure with it. A history of the success and failure of the drugs now in use is herein given, in the belief that such a summary makes an appeal to pathology to throw fresh light on the nature of this disease.

Chloroform has had extended trial. Its effects at first sight are most brilliant and satisfactory, nor need it always, in order to relieve spasm, be pushed to narcotism. Great amounts have been used in protracted administration. Simpson narcotized a child for thirteen consecutive days, using ℥100 with success. But the general result is, that while all the fatal symptoms disappear upon the inhalation of chloroform, they return at its removal with unabated violence, and the disease then comes to fatal conclusion without delay. Dr. Panthel, of Limburg, reports experience with chloroform as bearing out this statement. Chloroform is now rarely administered in tetanus.

Chloral has been used in innumerable cases. It is given in large doses, and may be given without fear. A successful case is reported (1875), the daily dose having been 155 grains; and another, a child of twelve and a half years, who took more than 200 grains a day. Dr. Ballantyne, of Dalkeith, gave ℥iij in twenty-four hours, and ℥vjss in three weeks with success. Other and similar cases are well known. Unsuccessful ones were reported in 1874. Alphonse Deu (1875), in a traumatic case, gave as much as 150 grains a day without good result. Chloral was injected into the veins by Dr. Oré (1872), who, though unsuccessful, vaunted his method. It was also tried by Cruveilhier (1874), who also failed, and recommended that a solution, containing one-fifth, in place of one-third, should be used. Lannelongue (1874), using one-fifth, met with same result, and in the *post-mortem* examination found thromboses in

the injected veins, and clots in the right heart. Dr. Oré's method was denounced in the Medical Theatre, at Paris (1874), and finally died in the same year before the Surgical Society of Paris, defended by its author to the last. A strength exceeding one-third for subcutaneous injections, injures the skin.

Calabar bean has a high and well deserved reputation. Eibert (1873) pretends that of opium, chloroform, chloral, curare, and Calabar bean, the latter is the only one that acts satisfactorily on the spinal cord. He recommends either previous narcotism by chloral, or the simultaneous administration of atropine, so that both of these combinations have probably been tried. Holthouse (1864) reported two cases, one successful. He used three grains of the extract every two hours, and once four and a half grains in one dose. Maunder added two unsuccessful cases. Dr. Eeben Watson (1867) reported two traumatic cases which recovered. He had given, by accident, nine grains in as many hours. Later he reported six of eight cases successful.

Mr. Ashdown (1868) reported a case in which the drug seemed to fail; and Professor Spence (1875) reported another unsuccessful case, in which a boy of eighteen took twenty-two grains of the extract in three and a half days, and died on the fourth day. Dr. Dickenson (1876) lost a case after having administered subcutaneously seven grains of the extract in the course of an afternoon, without cessation of the spasm being procured. He reports also two successful cases, one of an idiopathic and the other a protracted nature. The drug has the effect of controlling the spasms, and lowering the temperature. If withheld, the paroxysms return; if pressed, it is dangerous. It is recommended to be used hypodermically in doses of not less than one-third grain of the extract every two hours. It is thought by some to dilate the pupil at first, also, as will curare, to produce spasm.

Opium, combined with chloral, has been successful. Delsol (1874) reports three cases out of four saved by this plan; but in most cases, where this combination has been used, the

chloral received more than half the merit of the cure. Alcoholic cases have been successfully treated by opium alone.

Nitrite of amyl has been tried and failed.

Bromide of potassium, combined with chloral, was used successfully by Drs. Panthel and Carruthers (1874); but the chloral was given in large doses. Bromide of potassium alone has had doubtful success.

Conium has had no flattering result. The cases in which it has seemed successful have been slight ones. Of aconite, some very remarkable results have been given. It was first used in 1846 by Mr. Page. The case was traumatic, and there was a remission of all symptoms after a three minim dose, then recurrence of symptoms, and with the repetition of the medicine, chilliness, cold skin, and clammy sweat, pulse 120, weak and intermittent. Antidotes used were wine and opium. The effects of the drug constitue in themselves a new danger to be met. Curare was first used in Italy by Vella in 1859. It was unsuccessful in his hands. But Cassaignac, in the same year, used it successfully. Its use, however, has passed into disrepute. Belladonna has met with some success. Benoit (1860) failed with it. On the other hand, Peschaux, in the same year, reported a successful case to the Surgical Society of Paris, having injected a solution of $\frac{1}{100}$ of atropine into different parts of the body. Fournier (1860) met with similar success. Strychnia increases, as one would suppose, the symptoms of tetanus. For cannabis Indica no special action has been made out. It has been tried, and failed.

Neurotomy, tenotomy, and amputation are beyond the scope of this paper.

For cold applications to the spine, sufficient material is wanting.

Carpenter (1860) states (reference not verified) that he cured sixteen out of seventeen cases by this plan. The ether-spray to the back has been reported of use.

It is to be hoped that some combination of these agents may be indicated, which will perform what each one of them singly has been found unable to accomplish.

Viburnum Prunifolium (*Black Haw*).—E. W. Jenks, M. D. (*Gynæcological Transactions*, 1876.) This remedy, used by the writer almost daily for several years, warrants him in speaking confidently in regard to results obtained from its use. Its most frequent use has been as a prophylactic against abortion. Of course the remedy is worthless when the abortion has already begun by detachment of the ovum. Where the habit of abortion has been formed, the viburnum may be given in the form of the fluid extract from a half teaspoonful to a teaspoonful, four times a day, beginning two days before the regular menstrual date, and continuing it two days longer than the usual menstrual flow. In dysmenorrhœa with profuse menstruation and pain, except when the pain is due to stenosis or mechanical destruction, viburnum affords the patient great relief. The remedy should be given for several days in advance of the period as well as during the time of the flow.

In spasmodic or neuralgic dysmenorrhœa, it is not sufficient alone to give relief, but may be given with advantage combined with sedatives and antispasmodic remedies, such as cannabis Indica, camphor, hyoscyamus, and conium. In that form of dysmenorrhœa with menorrhagia, caused by fibroid growths, it has been given in combination with ergot, with gratifying results. The writer would designate viburnum prunifolium as a uterine sedative, whose action is as pronounced as is that of ergot in causing uterine contraction.

The form of the viburnum used is the fluid extract made from the bark of the root and bark of young shrubs, and newly grown twigs. The dose is a half a drachm to a drachm, repeated every two to six hours.

A New Test for Bile-Pigment.—Dr. Waller G. Smith.—(*London Lancet*, July).—In a recent paper on the value of tincture of iodine as a test for bile-pigment in the urine, Dr. S. asserts that the value and delicacy of the nitric acid test is not so great as is desirable, and claims for tincture of iodine several advantages. It is easily procured, is not corrosive, the color produced is definite and persistent, and for delicacy it equals nitric acid. The idea is not new, it having been

published in a French journal several years ago. The best method of procedure is to place about a drachm of the urine in a test-tube, and then to allow one or two drops of tincture of iodine (B. P.) to trickle down the side of the tube, held nearly horizontally, so that the two fluids may touch, but not mix. If bile pigment be present, a fine green color will almost immediately be developed below the red layer of iodine tincture.

When the test-tube is held against a white surface, three zones of color are distinctly seen; viz., the red iodine layer, the yellow stratum of urine, and the green color between the two. The test succeeds better by floatation than by mixing the fluids, and the green color will persist sometimes for days. If the urine is very dark in color, it should be first diluted with water.

Heat speedily changes the color from green to brown.

Fetid Feet.—As a remedy for this noisome affection Dr. Rumbold recommends bathing the feet in warm water for fifteen minutes just before going to bed. The water should be kept as warm as can be borne, by the addition at intervals of boiling hot water. After the feet are dried and thoroughly rubbed with a coarse towel, an ointment composed of salicylic acid and bromide of potassium, each five grains to the ounce of vaseline, should be applied with considerable friction. Then the feet should be covered with a pair of cotton stockings well warmed.

In an article in the Revue de Thérapeutique, it is stated that an immediate remedy is found in washing the feet with a solution (1 in 100) of chloral and keeping them enveloped in compresses wetted with the same solution. Results as satisfactory, Dr. Burdon has claimed to have been obtained by the employment of a solution (commencing with 3 in 1,000) of the permanganate of potash. Dr. Berthold also indicates an efficacious method which is less troublesome than that of bathing with solutions. It consists in powdering the interior of the patient's socks with a powder composed of one part of

salicylic acid and five of starch. This is, too, an excellent mode of treating the local sweating which in fat persons takes place between the scrotum and the thighs, and if not arrested leads to a troublesome eczema and its accompanying pruritus.

III. Practical Medicine.

The Tenacity of the Life of Tape-worms.—Prof. Edward Perroneito.—(*The Boston Medical and Surgical Journal*, September 13, 1877.) In order to decide the important question of the tenacity of life of tape-worms and their larval forms, Prof. Perroneito made a long series of experiments and observations on *cysticercus cellulosæ*, and was enabled to ascertain exactly the lowest temperature requisite to insure the death of cysticerci and other animal parasites. In carrying on these investigations,he employed Schultze's heating table with neutral tincture of carmine and hæmatoxiline. His method depends (a) on the fact that a cysticercus keeps moving actively about while the temperature of the fluid in which it is placed is gradually raised; if one of these worms freshly prepared be placed in pure water, or in a weak solution of common salt, which is then gradually heated up to the temperature of warm-blooded animals, or still higher, the parasite twists and turns around with considerable activity, using its suckers and proboscis as organs of locomotion; (b) on the greater readiness with which dead tissues are stained by coloring fluids than are the same tissues during life. Experiments were made to ascertain the value of these two means of diagnosis above described. If the cysticercus freshly taken from a pig be prepared in the manner just mentioned, placed on a Schultze's warming slide and examined under the microscope, it was found that it began to move in most cases when the temperature reached 30° or 35° C. As the temperature rose still higher, the activity of the animal increased, especially while passing from 38° to 49° C. As the temperature gradually increased, the movements of cystic-

ercus celluosæ cease occasionally at 45°—46° C, sometimes at 47°, more frequently at 48° C, and out of over fifty experiments in only one case did the cysticercus keep up its motions beyond 49°, ceasing then, however, at 50° C.

As soon as its movements end the parasite is dead, and can not be restored by again lowering the temperature to that of the surrounding air and raising it a second time. At none of the intermediate temperatures does the cysticercus show the least signs of life. But a more convincing proof of the death of the parasite is obtained from the use of staining fluids, which color the *dead*, but not the living tissues of tape-worms.

A living cysticercus with its head everted may be put in neutral tincture of carmine, or in hæmatoxiline for from two to twelve hours or more without being colored; the staining begins only when the cysticercus dies. Therefore if the cysticercus is first brought to a temperature high enough to kill it, that is 50° C, and then left in one of the above mentioned tinctures, it colors intensely in less than three-quarters of an hour.

The staining begins at the head and proceeds towards the extremities of the caudal cyst. The head colors more deeply and rapidly than the neck, on account of the calcareous bodies which are less numerous in the remaining parts of the body. If a cysticercus from the pig be brought gradually to a temperature of 50° C, and then swallowed alone, or with butter or a crumb of bread, it never produces a tænia.

Some courageous students who volunteered to try the experiment did so without evil result. Prof. Perroneito's investigations were repeated upon other forms of worms, and the results were always the same. The cysticercus of the pig can seldom survive a temperature of 49° C, and exposure to the temperature of 50° C, for more than a minute leads to its death. The trichina spiralis, either frae or incysted, as found by several experiments always died at 48° C. These experiments have a great scientific and practical value, assuring on the one hand the highest temperature which cysticercus trichina and other similar parasites can endure. The tenacity of life generally attributed to the helminths and larvæ of like forms is,

therefore, much less than usually supposed. These experiments also show the harmlessness of flesh infested by these parasites, when it has once been raised to a temperature above 50° C, although it may remain there not longer than five minutes.

IV. Surgery.

About Shock, &c.—Nussbaum.—(*Bair. Ærztl. Intelligenz-Blatt*, 1877, No. 11, p. 107.) Many hitherto mysterious cases of collapse after operations can find a satisfactory explanation in one or the other of the following accidents:

(1.) *Acute Sepsis.* The application of septic fluids to a large and rapidly absorbing surface. Ovariotomy and various experiments prove this.

(2.) *Acute Anæmia.* After great loss of blood, particularly in previously anæmic persons and old people.

(3.) *Fat Embolism.* Particularly of the capillaries of the lungs after extreme comminuted fractures. Death often occurs in very robust individuals after this accident. It is ushered in with great dyspnœa. In all operations in the abdominal cavity, great danger is to be anticipated from rapid cooling of the peritoneum.

To prevent acute sepsis, we must employ sufficient antiseptic measures. By warmth and great care in our operations, we must prevent any great decrease of temperature in the peritoneum. As an illustration of what he means, Nussbaum relates a case of internal strangulation of the intestines. The operating-room, the antiseptic solution, and all cloths used, were made warm. The patient was wrapped up in warmed clothes. The strangulation was removed with the least possible exposure of the intestines. The man recovered rapidly and well.

Nussbaum thinks that by using the above precautions, and what we have already learnt of abdominal operations, it would be safe to operate from the abdominal cavity for radical cure of hernia.

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Oct. 1 and 15.
Chicago Society of Physicians and Surgeons—Mondays, Oct. 8 and 22.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 to 4 P. M., by Prof. Holmes and Dr. Hotz.
Mercy Hospital—2 to 3 P. M. Surgical, by Prof. Andrews.
Rush Medical College—1:30 P. M. Medical, by Dr. Bridge.
County Hospital—8 P. M. Necropsy, by Dr. Danforth.

TUESDAY.

County Hospital—1:30 P. M. Medical, by Prof. Bevan; 2:30 P. M. Surgical, by Dr. Bogue.
Mercy Hospital—2 P. M. Medical, by Prof. Hollister.
Eye and Ear Infirmary—2 P. M. Prof. Jones.

WEDNESDAY.

County Hospital—1:30 P. M. Gynecological, by Prof. Fitch; 2:30 P. M. Ophthalmological, by Dr. Montgomery.
Mercy Hospital—2 P. M. Eye and Ear, by Prof. Jones.
Rush Medical College—4 P. M. Diseases of the Chest, by Prof. Ross.

THURSDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
Rush Medical College—1:30 P. M. Neurological, by Prof. Lyman.
Eye and Ear Infirmary—2 to 4 P. M. Operations, by Prof. Holmes and Dr. Hotz.

FRIDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
County Hospital—1:30 P. M. Medical, by Prof. Ross; 2:30 P. M., Surgical, by Prof. Gunn.

SATURDAY.

Rush Medical College—2 P. M. Surgical, by Prof. Gunn.
Chicago Medical College—2 P. M. Surgical, by Prof. Andrews and Isham; 3 P. M., Diseases of Chest, by Prof. Johnson.

Special Clinics daily, from 2 to 4 P. M., at the South Side Dispensary, and at the Central Free Dispensary.

For schedule of lectures at the colleges, apply to the college janitors.

THE

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AND

EXAMINER.

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Original Communications.

ON THE SO-CALLED ECZEMA MARGINATUM OF HEBRA (*TINEA TRICHOPHYTINA CRURIS*), AS OBSERVED IN AMERICA—A CLINICAL STUDY.

(Read at the First Annual Meeting of the American Dermatological Association, September 4th, 1877.)

BY L. DUNCAN BULKLEY, A. M., M. D.

Physician to the Skin Department, Demilt Dispensary, New York; Attending Physician for Skin and Venereal Diseases at the Out Patient Department of the New York Hospital, etc.

That there is a parasitic disease of the skin which shows individual characters, dependent on its peculiar location upon the thighs near the groin, there is no longer any doubt. The subject was thoroughly studied and discussed several years ago by Bärensprung, Hebra, Köbner, Pick and Anderson, and certain quite definite conclusions arrived at, which have been accepted by the majority of recent observers. It is my desire, in the present paper, to call attention to the disease as it occurs in this country, where it is not very infrequent, confirming the descriptions of others, as far as relates to the ap-

pearance of the eruption in New York city, where, however, it presents features very much less marked and severe, in many instances, than those described by writers in other countries; for I am not aware that it has ever been particularly touched upon by an American writer. I desire also to urge a plan of treatment which has been universally successful in my hands, but which is little known and hardly alluded to in the text-books.

This eruption was fully described in 1855 by Bärensprung[1], who found a parasite in all his cases, and who named the disease *herpes inguinum;* it must be mentioned that Devergie, in the preceding year[2] had mentioned it very briefly as a variety of herpes circinatus, or ringworm of the body. In 1860, five years after Bärensprung, Hebra, in the first edition of his book[3], gives exactly the same clinical picture under the name circumscribed eczema (das umschriebene eczem), or *eczema marginatum*, claiming that it is simply a variety of eczema; and this name, eczema marginatum, has since clung to the disease. Bärensprung was right in his perception of the true nature of the eruption and Hebra was wrong; the former died soon after and his description was forgotten, and the error in regard to it was not finally cleared up until nearly ten years later, when, after investigations by Pick[4], Hebra himself[5] acacknowledged the existence of a parasite, and afterwards, in the second edition of his book[6], he described it as *eczema marginatum parasitarium*, still treating of it as a variety of

1. Annalen des Charite Krankenhauses zu Berlin, VI Jahrg. Heft I., 1855, p. 150.

2. Devergie—Traité Pratique des Maladies de la peau, Paris, 1854, p. 274.

3. Handb. des Speciellen Pathol. und Therap. Virchow, Band. III, Hebra, 1860, p. 361.

4. Archiv. für Dermatologie und Syph., Vol. I., 1869, pp. 61 and 443.

5. Archiv. für Derm. und Syph., Vol. I, 1869, p. 163.

6. Lehrbuch der Hautkrankheiten, Zweite Auflage, Erlangen, 1874, Band. I, p. 485.

eczema. It may be added, however, that Köbner[1], in 1864, had found a parasite in eczema marginatum, had inoculated himself from it, and had, furthermore, claimed that the disease was but a herpes tonsurans of these parts; to this Hebra answered that the disease which he called eczema marginatum was a different affair, and that there was no fungus in it. This seemed to settle the question, until it was successfully re-opened by Pick in 1869, as before stated.

To show that the same affection was intended by each of these writers, as well as to furnish a means of comparison with the disease as observed here, I will briefly quote their descriptions:

Bärensprung says:[2] "There is an affection which has been generally known as hemorrhoidal erythema or eczema, which, although very common, has found hardly any mention in dermatological works. According to my experience, it is more common in men than women, and, as it appears commonly during the middle period of life, it is generally looked upon as a consequence of hemorrhoidal disturbances. It appears mostly in a limited area, embracing the external genital region and the anus, and is accompanied by a more or less severe itching. It occupies, by preference, that portion of the skin on the inner sides of the upper portion of both thighs which is in contact with the scrotum, and therefore almost always appears as if caused by pressure of the scrotum; it often extends on to the mons veneris, occupies the perineum and the region of the anus, and even the skin of the scrotum and penis itself.

"The diseased surface is sharply bounded by a curved or irregularly bent line, and the skin enclosed by it is red and rough, in many cases so dry that the disease resembles an erythema or a pityriasis; in other cases it appears excoriated, and to a certain degree moist. In still other cases the border is covered with small vesicles, or even small pustules, which

1. Klinische und exper. Mittheilungen aus der Derm. u. Syph., Erlangen, 1864, p. 6.

2. Annalen des Charite Krankenhauses zu Berlin, Bd. VI, 1855; Heft I, p. 150.

pour out a watery fluid which dries to thin crusts. In cases of this kind the accompanying itching is very severe, and the eruption appears more as an eczema or an eczema impetiginodes.

"The following are the grounds upon which," continues he, "I hold that this affection is essentially identical with the hitherto described forms of herpetic disease, and on which I class it as a herpes" (he meaning thereby our present *tinea circinata*):

"1. In all the cases I have found, in the epidermal scales and debris scraped from the affected portions, a vegetable parasite, that is, a branched and jointed mycelium which agrees perfectly with that found in the other forms. This vegetates in the superficial as well as in the deeper layers of the epidermis, in the root-sheath of the hairs, and attacks even the hairs themselves. I found the scrotal hairs brittle, and here and there filled with the neck-lace like threads of fungus, as seen in the hairs of the head in herpes tonsurans.

"2. The affection appears as a purely local one; it is not connected with any general disturbances, and is cured rapidly by the employment of purely local measures, and that without any injury to the general health.

"3. The disease has the same peripheral mode of extension as have the other herpetic affections.

"4. The disease appears in many cases to be communicated by contagion."

Without commenting on this for the present, other than to say that Bärensprung proceeds to detail a number of cases which furnish most perfect clinical corroboration of the above, I will at once quote Hebra's description, as it appeared in the first edition of his book in 1860[1], or fully five years after Bärensprung has published his article; Hebra's description is given without the slightest reference to the latter.

Hebra says, "By the designation eczema marginatum I indicate a peculiar form of eczema, which is separate and distinct from all other varieties of the disease, by its constant localization on the inner surfaces of the thighs, on the mons

1. Hebra, Acute Exantheme und Hautkrankheiten, 1860, p. 361.

veneris, and on the buttocks, by its peripheral extension and simultaneous clearing up of the center, by the distinct limitation of the periphery of the affected portions by an elevated line, on which the phenomena of eczema are especially developed, and finally by its almost exclusive occurrence in men, especially in shoemakers." "It always begins on the inner surface of the thigh, in men where the scrotum touches it, generally on the left side, there first appears a small, round, elevated spot which itches, is scratched and small punctate excoriations are seen. Shortly the center pales, so that only the red border is visible. Here we see sometimes papules, sometimes vesicles, sometimes excoriations, and later, in consequence of the drying of the exudation and the blood extravasated by scratching, small brown or black crusts are seen. The disappearance of the eczematous appearances in the center corresponds to the peripheral spreading of the disease, so that the originally small spot increases to the size of the hand. When it occupies this extent the central portions show considerable pigmentation, and the whole affected surface contrasts strongly with the healthy skin. Here and there in the central pigmented portion, single, small punctate, new developments of the eczema are seen, but the principal eczematous phenomena are observed on the outer edge." * * * * "The eczema seldom remains confined to the originally affected surface of the thigh; it generally spreads to the immediate neighborhood by the new development of the round patches, increasing to circles, or, the other thigh is affected symmetrically, the eruption gradually extending above, below, and behind, until, in untreated cases of long standing, the disease may reach to the navel, down to the knees and cover the buttocks." Hebra has also seen it extend to the back, breast, and neck, and once, on a female, even to the extremities.

Hebra at first questioned if this eruption were not an eczema modified by syphilis, but there is no mention in the first edition of his book of a suggestion occurring to his mind that it might be due to a parasite, which is a source of wonderment, considering how closely his clinical description corres-

ponds with that of the behaviour of the vegetable parasitic eruptions, bearing in mind also Bärensprung's observations published five years previously.

There can then be no doubt that Bärensprung and Hebra were giving an account of the same affection, indeed the description of the latter seems almost as if taken from that of the former, so minutely do they describe the same appearances, in much the same words, a striking instance of the accuracy of the two brilliant clinicians, as Hebra does not seem to have seen the article of Bärensprung. In the second edition of his work he does refer to Bärensprung, not, however, to the description just quoted, but to a second article published in 1862, that is, *after* his own description had appeared; in this second article by Bärensprung the same disease is alluded to under the term "erythrasma," to which less than a dozen short lines are given. The object of this diversion is to give the credit to Bärensprung, to whom it belongs, as being the first to accurately and carefully describe the disease under consideration, he giving to it a name, herpes inguinum, which indicated its true nature (for by "herpes" Bärensprung and others of his time and later understood a vegetable parasitic disease, as it is now recognized to be); while the name eczema maginatum signifies nothing.

It is equally evident that Köbner in the work before referred to, intended the same affection, the clinical details of the first of his cases answering so perfectly to those given by Bärensprung and Hebra that it is needless to reproduce them here.

Finally, a number of Pick's cases were observed in the wards of Professor Hebra, and the diagnosis of eczema marginatum was made by him before Pick demonstrated the presence of the fungus parasite in them; their description, therefore, need not be given.

I cannot, however, forbear quoting here Devergie's brief description of the same eruption, written, as mentioned, in 1854, or the year before Bärensprung's article appeared, and six years before Hebra. Devergie, like Bärensprung, also classes it as a herpes; with herpes circinatus and herpes ton-

surans, but he was not familar with the microscopic parasite, except by hearsay in regard to herpes tonsurans, and he does not suggest its existence in the affection under consideration.

Says he, [1] "There is one variety which is very commonly observed on the upper and inner surface of the thigh, in the neighborhood of the scrotum; it is a sort of a herpes circinatus in which the vesicles are more apparent and more secretory, and at the same time cause more burning and heat than is observed in the other varieties. The affection may readily be mistaken for intertrigo, for the contact of the scrotum with the thighs develops both affections. The existence of a circular, raised margin in this eruption, and its absence in intertrigo, distinguish the two affections apart, as does also the more abundant secretion in intertrigo. Herpes is a rebellious malady, in most cases easily reproduced."

To complete the bibliography of this discussion, mention should be made of the fact that McCall Anderson [2] in 1868 recognized and demonstrated the parasitic nature of this disease, and his description, as also his cases, answer in every way to the features of the disease as already detailed.

As illustrative of the clinical features of the eruption in this country, I will mention briefly twelve cases, of which I have full notes, all of which except two occurred in private practice, and in ten of which microscopic examinations were made, revealing the presence of the parasite in every instance.

Case I. A well known physician in New York aged, about 38, has worn a suspensory bandage for a varicocele for years; occasionally there has been some chafing of the thigh from it, but no serious skin trouble resulted until one month before his visit to me. He then noticed a small circular spot with well defined edges on the upper and inner surface of the left thigh, which continued to increase in size and to give more and more annoyance by its itching until he came under my care.

When first seen there were two rings, not circular, on the inner surface of the thigh, where the scrotum rested against

1. Devergie—Traité pratique des maladies de la Peau, Paris 1854, p. 274.
2. On the parasitic affections of the skin, London, 1868, 2d. edition p. 76.

it: one of them was about an inch in diameter, and the other one and a quarter by two inches. They were healed in the center, leaving a brownish and rather mottled skin, from which scales could be easily raised by moderate scraping. The margins of the eruption were very clearly defined, of a moderately active red color, composed in part of separated papules, but in the main the margin was unbroken; it was rapidly extending, leaving a cleared surface behind. This margin was distinctly, although very slightly, elevated. The side of the scrotum, (which lay against this surface in the night, unprotected by the suspensory) was red, itchy and presented some papules, which also could easily furnish scales on scraping.

Removing the scales and placing them in liquor potassæ and glycerine, on the slide of a microscope, magnifying two hundred and fifty diameters, they were found to present the mycelium and sporules of a fungus growth in great abundance, which resembled mainly the trichophyton tonsurans.

Sulphurous acid alone was prescribed, with directions to bathe and rub the parts freely with it, using it as strong as it was possible to procure it. The relief afforded was instantaneous and perfect, the language of the patient at the next visit being as follows: "You can hardly appreciate the exquisite relief given by the sulphurous acid when the itching comes on; it is perfect." Five days after the first application the margins of the eruption were still very well defined, much less elevated and with yet some scaling; the disease which had been rapidly spreading was completely arrested. Three weeks later, when last seen, the eruption on the thigh was well, the scrotum was still red, and covered with a glossy coating of cuticle, already separating, which had resulted from the too severe application of the sulphurous acid. From a letter still later, I learned that the eruption was cured at the end of one month from the first visit.

Case II. A. K. C., a large and somewhat fleshy gentleman, aged 30, first noticed a ring on the inside of the right thigh about three or four weeks before his first visit to me. On the following week a patch appeared on the opposite thigh, both of them being where the scrotum lies on the part. About

the same time or shortly after, he found an eruption in both axillæ. He attributed the disease, with much probability, to a contagion acquired in Mexico, whence he had just returned, he saying that the filth of the country was such as to engender such diseases; he stated that it was a common custom there for the natives to wear the clothing of strangers sent to be washed, for a period before returning them; the clothes would often be retained thus two or three weeks before they could be gotten back.

When first seen the following conditions were recorded: On the right thigh was a very distinct ring, with a clearly defined margin, red, and slightly raised, of a line or two in breadth. The center of the patch, which was irregularly shaped and about four inches in diameter, was dry, of a dirty brown color, and slightly scaly, contrasting strikingly with the sharply cut margin; around the outside of the patch were a number of separate and isolated papules, flat and of a reddish color. On the left thigh there was a similar patch, but of much less extent. In the axillæ the eruption presented the usual appearances of ringworm of the body, and no other portions were attacked except those here mentioned; in the right axilla the disease occupied an area of about two inches in diameter; in the left axilla there was one small circle, about three-quarters of an inch in diameter.

The microscopic examination of the scales scraped from the margin showed a moderate amount of fairly luxuriant mycelium, and an abundance of spores. Sulphurous acid was ordered to be freely applied in full strength, and six weeks later he was next seen, after returning from a trip South, as purser of the Havana steamer. He reported that the first application of the acid checked the eruption and arrested the itching at once, all of the cutaneous lesions disappearing entirely for a time. He then exhausted his supply of sulphurous acid, and had had none for twelve days, and the eruption had spread very luxuriantly during that time, especially during the last four days, which had been very warm and damp. There was now seen a large circle around the anus, occupying all the soft portion between the buttocks, with the same clearly defined, slightly

prominent, red margin, and the dirty, yellowish-brown centre. It had also increased materially on the left thigh, and there was also the same on the left side of the penis and scrotum; under the arms the tinea was spreading, and on the right side of the neck there was a small, typical ringworm. The eruption about the anus was scraped, and the parasite found in the scales.

At a later date, two or three other spots of tinea circinata were seen; one on the left leg, near the ankle, and two on the left thigh, elsewhere than where the eczema marginatum existed in the crotch. As an adjuvant to the sulphurous acid, he was ordered the compound tincture of green soap, and an ointment of turpeth mineral, fifteen grains to the ounce, to be kept applied at night; it was to be washed off and the acid applied in the morning. Six days from the second visit the eruption had lost all of its distinctive characteristics; there was no more itching, and he went to sea again, apparently cured. He was directed to continue the use of the acid for a season, to prevent a relapse again.

Case III. J. E. S., aged thirty-five, was brought to me by his physician, during the intense heat of August, 1876, suffering terribly from what appeared to be an ordinary eczema of the whole region of the penis, scrotum, anus and abdomen. His history was, that he had had an eruption on these parts for at least three years, varying with the season and treatment, at one time better at another worse. He was also said to have had eczema of the ears five years or more ago, the remains of which had hung on ever since, in the way of scaling and some itching; he had also had what appeared to be eczema tarsi for a long time.

He was placed upon a treatment for his eczema of the genital region, consisting of alkaline and starch baths, dilute tar wash, followed by mild zinc ointment, and laxatives and alkalies. Very great relief was obtained, and, with certain other adjuvants, the case progressed very well, so that by the end of two weeks all, or most of the soreness was gone, the surfaces were dry, and the patient was quite comfortable. But still the disease seemed to remain in some localities, and resist various

stimulant measures for eczema, although by constant employment of remedies, he was comparatively free from annoyance.

After all acute symptoms had long disappeared, two months and a half after his first visit, on examining the parts very carefully, or rather on taking a general look at the affected surface from a little distance, I noticed that there was a distinct red margin on both thighs, slightly raised, and of a color which contrasted strongly with the surrounding healthy tissues, and also with the skin enclosed by it, which was of a brownish-yellow. Placing some of the scales scraped off, beneath the microscope, they were found to be loaded with the mycelium and spores of a vegetable parasite; and certain hairs which were included in the specimen, were affected as in tinea tonsurans. This led to an investigation of the ear disease; and the scales taken from the auditory canal were examined, and found to contain fungus in abundance, the mycelium quite predominating, branching, often with enlargements and knobbed ends. In comparing the parasite with that seen in a fresh case of tinea tonsurans on the head of a child, which by good fortune appeared at the office on the same day, all the elements were found to be much smaller than those of the trichophyton, and corresponded more to the aspergillus. An examination of scaly crusts removed from the eyelids, showed also the presence of a parasite.

Here, then, we had the explanation of the chronicity both of the ear and eye trouble, and of that about the thighs. They had gotten better for a time under treatment for several years past, but the disease ever relapsed when not actively combatted, so that the patient, even when he considered himself comparatively well, had never been free from annoyance from the itching in the ears and about the thighs, and at times the distress had been very great. There had been the constant presence of the vegetable growths, which remained quiescent much of the time, but which always caused some irritation, and, when occasion invited, gave rise to much trouble. There can be little doubt but that the acute eczema of the penis, scrotum, and thighs, with which I saw him first, was the result of scratching; and when the irritation was, in a measure,

relieved and scratching forbidden and prevented, the parts subsided to their chronic state in which the parasite was afterwards found.

Sulphurous acid was given him, when the parasitic nature of the affection was discovered, to be freely applied in full strength, and three days later it was recorded that there was very great change in the appearance of the thighs; all the marginated character of the eruption was gone. He had thought that there was comparatively little annoyance given by the disease at the previous visit, as it had been only what he had borne for several years, but on this occasion he expressed the greatest relief from that incessant irritation which had made him always conscious of the presence of the disease; the difference between his expressions before and after the use of the sulphurous acid was remarkable; he repeated so many times that he had experienced the greatest relief from it.

He was also ordered sulphurous acid, diluted with an equal part of glycerine, to be painted in the ear, and six days after its use it was noted that the ears were better than they had been for years. The eyes were bathed with a weak solution of soda, and a weak red precipitate ointment was used, to their great benefit.

There were some changes made in the treatment of the thighs, from time to time; occasionally the sulphurous acid would prove too severe, and an acute irritation would require other treatment for a while, but in the main the acid was persisted in, and at the end of about three months it was recorded that the thighs were entirely well; that the ears, which had given trouble incessantly for four or five years, were perfectly healthy, and that the eyes were in better condition than for many years. For the latter he wore glasses to correct an error in acccommodation, as suggested by Dr. Roosa, who saw the case with me and assisted in the treatment given to the eyelids and ears, concurring in regard to the parasitic nature of the eruption in these localities.

I may add that a number of times during the treatment of the case scales were scraped from the diseased surfaces, and the

vegetable parasite was repeatedly found; also that in one axilla there was a quite distinct ringworm, of ordinary appearance. One more feature in reference to the eruption about the thighs was the occasional development of the same, sharply defined, flat, dull red papules of varying size, just outside of the ring of the so-called eczema marginatum, as was mentioned to occur in the first case, and occasionally the same within the area which had been passed over by the disease. These, as in the other cases, were considered to be new exhibitions of the parasite, and more assiduous application of the sulphurous acid caused their disappearance.

This patient remains under observation from time to time; I saw him socially a few weeks since, and continues free from the eruption which had annoyed him for years, the true nature of which had never before been suspected.

Case IV. Dr. Y., aged about 33, a physician of a neighboring city, consulted me in reference to an eruption which had existed a long while on the upper and internal surface of the right thigh. There was then a patch five or six inches long by one and a half to two inches wide, corresponding to the surface of contact of the scrotum and thigh. The margin of the surface was very sharply defined, being of a decided red color and slightly raised, with some outlying papules possessing the same features. The center of the patch was also somewhat reddened, the tissue slightly thickened and a moderate amount of scaling present, which could easily be increased by scraping. Microscopic examination showed abundance of spores filling the field, with some mycelial threads.

The history was that he had had irritation in this locality for several years, during which time he has had boils and carbuncular swellings on the scrotum; he has never been free from irritation and an eruption in this region, he says, for twelve years, although from his extreme cleanliness the disease has been kept within its present boundaries. The itching from it at times has been intense.

Sulphurous acid was advised to be freely applied, and by a letter I learned that it was followed with apparent benefit, but was discontinued after a few days in consequence of the dis-

tress to the respiratory passages caused by the fumes which arose from it. I have not seen him since, but he promised again to try the acid and report.

Case V. M. H. D., aged 29, presented the most marked example of a general eruption of tinea circinata which I have ever met with, and with it he had the marginated eruption about the genito-crural region. He had had the eruption for at least three years, and from the description of the case, recorded several years ago, it appears to have spread from below upwards, appearing first on the lower limbs. It had been located in the genital region for about two years previous to his visit; about a year after this it reached the neck, soon appeared on the face, and lastly on the left hand.

At his first visit the condition was noted as follows: The larger part of the body is covered with an eruption consisting of somewhat elevated, reddened circles, enclosing brownish-yellow, desquamating surfaces. Many of the circles are irregular, and in some instances quite broken, but the scaly surface exists almost everywhere, with occasional islands of unaffected tissue. The eruption really extends from the sole to the head, the face and neck having many ordinary ringworms upon them; the eruption had not extended into the hairy scalp except very slightly at the back of the neck, where the hairs were stumpy.

About the genital region the eruption possessed the characters described in the former cases of eczema marginatum—that is, on the sides of the thighs adjoining the scrotum were circles of reddened and slightly raised tissue, with moderate tendency to moisture, enclosing a brownish-yellow surface, slightly roughened. The itching and general irritation from the eruption was terrible; the patient walked around the office incessantly, being unable to sit long on account of the soreness of the buttocks from the disease.

His wife and children, he said, had all had attacks of ring worm.

Microscopic examination of the scales scraped from a number of places showed them to be loaded with the mycelium and spores of the trichophyton tonsurans, and the examination was

repeated at a number of successive visits, always with the result of finding an abundance of the parasite. This was the first time the scales had ever been thus examined by a physician, and this the first suggestion of the true nature of the affection, although he had suffered from it for several years and had seen a number of physicians.

He was placed upon the pure sulphurous acid, to be freely applied, and in less than three weeks it was noted that the entire skin was nearly free from eruption. With the increase of warm weather in August the disease seemed to gain headway and again to give great annoyance; he was then ordered to use sulphurous vapor baths, several times weekly, and to continue the acid. By September 1st the baths had cleansed the skin greatly, but in spite of all treatment the parasite was still discovered in abundance by December 10th.

One year from the first visit he called to report that the eruption was about gone, there being, however, still a little on the neck, buttocks, feet, and left hand. He was in excellent spirits, the relief from the itching being very great; he was persisting in the use of the sulphurous acid and wished no other remedy to conquer the disease. That portion about the genitals ceased to give trouble very early in the treatment.

Case VI. M., aged about thirty, for four years had an itching eruption at the upper portion of the thighs and in the crotch; it commenced after the repeated use of Turkish baths for several months, and had continued to spread ever since, the itching has been very great.

When examined the inner surface of both thighs for a distance of about six inches from the crotch, was the seat of a brownish, dry, scaly eruption, with a well defined, reddened edge; the eruption extended back, well on to the buttocks. The condition of the scrotum was not noted. Examination with the microscope of scales scraped from it showed the abundant presence of fungus. He was placed upon sulphurous acid, but was seen only once and the result is not known.

Case VII. Mr. T. V. C., aged 54, first noticed a small red spot on the inside of the left thigh, where the scrotum touches it, four weeks previous to his visit to me. This continued to

increase circumferentially, and other small circles appeared and developed, coalescing with the first one until his visit. It was recorded then that on the inside of the left thigh there was a patch of eruption about the size of the palm of a large hand, the center of which was healing, and the margin was distinctly defined and a little elevated. On the same side of the scrotum an exactly corresponding eruption was seen, the center of which was reddened and slightly scaly, and the margin was sharply cut, of a bright red, and moderately elevated. On the inside of the right thigh a single smaller spot had developed, and on that side of the scrotum the same was seen, in such a position that when the latter was allowed to rest on the thigh the two diseased spots exactly matched.

A microscopic examination of scales scraped mainly from the left side, revealed the mycelium and spores of a vegetable parasite, quite abundant.

He also was placed on sulphurous acid, which produced an immediate amelioration of the symptoms, but the skin proved very delicate and sensitive to the acid, and it was necessary repeatedly to suspend its use and adopt more soothing measures. There was also a considerable tendency to the development of boils in this case but the ultimate results were satisfactory.

Case VIII. H. F., a large and rather fat German, fifty years old, appeared at Dr. Draper's Skin Clinic at the College of Physicians and Surgeons, on January 15th, 1877, for the relief of an eruption about the thighs and genitals. During my absence the following remedies were prescribed by one of the assistants, on the diagnosis of ordinary eczema, namely: two compound cathartic pills every second night, thirty grains of acetate of potassa, thrice daily, and the following ointment: ℞. olei cadini ʒij, pulv. camphoræ ʒiss, ung. simplicis ℥iss, glycerine ℥ss, M., to be well applied.

Two weeks after his first visit I saw him, and he reported that there had been no relief to the terrific itching which had so long distressed him. I then learned that the eruption was of several years duration, and had never yielded to any treatment, although he had been constantly under medical care.

His history is as follows : for ten or twelve years he has had chafing at the crotch during the hot weather, it going away with or without treatment on the approach of cooler weather (during about the same length of time he has become much more fleshy than previously). The present eruption did not begin, as the preceding, with warm weather, but, after the chafing of warm weather had ceased, in October, 1876, and increased instead of diminishing with the advent of cooler weather. At this date he first noticed an eruption on the upper part of the thighs, which gradually increased in severity under treatment until the date of his visit. The itching which he had endured he described as terrible, entirely depriving him of sleep; he would frequently get up in the middle of the night and walk several miles, and the parts bore testimony to his sufferings in the inflamed and irritated surface caused by his continual frictions.

When first seen the eruption resembled that in the cases already described, in many important particulars, but also presented points of difference. Both thighs at their upper and inner surface, to the crotch, were the seat of a red eruption, the outer portions more elevated than the inner, and the margins very well defined, and ended abruptly in healthy skin; there was no gradual shading into healthy tissue as in eczema. Around the outside of the principal portion were several smaller spots of disease of various sizes, from that of a pin's head to a third of an inch in diameter ; at late periods of the case there were more of these flat, out-lying papules, which I have recorded as existing in many of the other cases. The color of the affected surfaces was of a rather dusky red, the outer portions of a higher color than those toward the center ; the surfaces were moist, but this was largely from perspiration, as the surface could hardly be called a weeping one as in moist eczema. The sides of the scrotum were red and itchy. He also had chronic eczema on other parts of the body, behind the ears and on the hands.

The scales, scraped from the surface of the thighs, were examined and found to contain both mycelium and spores of a parasite abundantly, and the patient was placed upon the free

external use of sulphurous acid. At the next visit, one week later, February 5th, I recorded that there had been a very manifest change in the appearance of the eruption, it had lost much of the elevated distinctness of its border, and, while it had been spreading rapidly before treatment, all advance had been arrested completely. But the statements of the patient afforded the most satisfactory proof of the correctness of the diagnosis. As before stated, he had not slept for more than two months previous to his visit; that night, after a thorough application of the sulphurous acid, he rested, sleeping all night, and had continued to experience the same relief up to the time of the note at the second visit.

To conclude the history of this case, he continued to improve week by week as my repeated notes show, until on March 5th, the marginated appearance was about gone, there was only a moderate redness of the parts, and no itching. On April 16th hardly any trace of the former difficulty remained. I have seen him on repeated occasions since, even during the present month of August, and he remains entirely free from his eruption; morever, this summer he has not even experienced the chafing which distressed him during previous warm seasons. From first to last he used only the sulphurous acid, no other remedy was necessary, and at no time was there any irritation of the skin requiring its cessation, as in several of the other cases.

Inasmuch as there was some little difference of opinion among some gentlemen who saw this case, I examined the scales from the surface several times, always with the result of finding more or less of the parasitic elements, until they had been removed by treatment. I also submitted some of the scales to my friend Dr. Heitzmann, who agreed with me in the existence of the parasite, and also as to the nature of the disease.

Case IX. Rev. Mr. B., aged about 40, has for several years suffered more or less from an eruption about the thighs and genitals, which has caused him to scratch much of the time, or rather has given an uneasy sensation which calls imperatively for scratching. On the inside of the right thigh was

seen a reddish patch, three or four inches in diameter, bounded by an irregularly curved border, more reddened than the rest of the eruption, sharply lined toward the healthy tissue, the margin being decidedly more elevated than the central portion of the patch. On the left thigh, where the scrotum rested, was another smaller patch, possessing equally distinct characteristics. The surfaces were slightly scaly and on scraping them a fungus was found by the microscope to be present in a very easily appreciable amount. I find it recorded that the parasite was not seen when first looked for, until the scales had been soaked a little while in liquor potassæ and glycerine.

Case X. W. E., aged 33, said that two months previous to his visit to me an eruption developed on the inside of the left thigh, which "looked like ringworm," was circular, red, slightly elevated, and itchy. It had continued to increase in size, giving much disturbance, until he was sent to me for treatment. When first seen there was considerable artificial eruption mingled with the parasite disease, which former had been caused by a bi-chloride of mercury wash which had previously been advised by another physician. There was still, however, sufficient of the marginated appearance already described to warrant the diagnosis, and a microscopic examination of the scales demonstrated a parasite.

The case was treated for a while as one of ordinary eczema of these parts, because of the amount of irritation present, and at a later date the sulphurous acid was employed as in the other cases. One month after his first visit, a small circular ringworm developed on the inside of the right thigh, red and slightly elevated; this, he says, corresponded very closely with those which first appeared.

Case XI. Mr. C. S. D., aged 47, was seen recently, and but once, and the results of treatment are not yet known. About a year since he noticed an itching behind, about the anus, and three or four months ago the region of the scrotum and thigh began to give him trouble. He has also an eczema of the palms which has existed four years, and at times given him great annoyance.

Examination showed the following state of the parts. Around

the arms a brownish, slightly roughened patch was seen, on both sides of the fold between the buttocks, limited externally by a distinctly drawn line of redder surface, which is slightly elevated and contrasts strongly with both the healthy skin and the enclosed brownish-yellow surface. On the left thigh, occupying a location corresponding to the place of contact of the scrotum, is a reddened surface of simple eczema, slightly moist, and without the marginated appearance; indeed, with the center of the patch more markedly affected than the periphery, a clinical sign, as we shall see, of some importance, pointing to an eczematous rather than a parasitic disease.

In this case also the parasite was found in the scales scraped from the region of the anus, upon careful microscopic examination, both spores and short mycelium. Sulphurous acid was ordered to the eruption about the anus, and other measures for the eczema existing elsewhere.

Case XII. A. B., a German woman, aged 36 years, was seen by me at the request of Dr. Hanks, in his room at the Demilt Dispensary, January 20th, 1877, and he kindly gave me the following notes of the case:—She had come to Dr. H. in August, 1876, for "an exceedingly troublesome and constant itching about the front passage, which had existed for six months or more. She was a stout, well-nourished woman, cleanly in her habits and person. On examination there was found an eruption covering the integument of the labia externa, perineum, and around the anus, showing frequent marks of the finger nails. The disease seemed to be very superficial, and the line of separation between healthy and unhealthy parts very marked. She was given benzoated oxide of zinc ointment with oil of cade, which gave no improvement, using also a vaginal wash of alum and chlorate of potash. An ointment of chloral and camphor, prescribed later, gave relief to the itching whenever applied, but at the end of several months the disease was about the same."

When I saw her, January 20th, the labia and to a slight extent the sides of the thigh, also the perineum, and the region of the anus were the seat of an eruption resembling the other cases of eczema marginatum here described. The area of dis-

ease was bounded by a very distinct margin, slighly raised, of a tolerably active red color, while within the surface was more of a yellowish-brown color, and not elevated as at the margin. The eruption extended around the anus, and as in the other cases the lines on the opposing soft parts of the buttocks corresponded exactly with each other in shape and contour.

I regret very much that the scales were not examined microscopically, but the clinical appearances were such that there was no doubt in my mind as to the parasitic nature of the eruption, and I therefore advised the free local use of sulphurous acid. Two weeks from that visit Dr. Hanks reports that the case was nearly well, and that she remained so, except around the anus, until a month or two ago, when she again complained; this time she had a crop of little boils, and more or less itching around the anus.

It is not my intention at the present time to attempt a complete study of this disease, with reference to the work of others; but I wish to bring forward these cases to illustrate the subject in some of its features as occurring in this country, for, unless familiar with it, the comparatively mild cases occurring here may escape attention, when they fail to present the severe features depicted by Hebra and described by others. I may add, that the cases here detailed do not constitute my entire experience in the disease, for each year I meet with a number of cases of it in public practice, of which I have no notes, and some of my cases in private practice may have been overlooked and I have the notes of a number of cases which I saw in the practice of the late Dr. H. D. Bulkley. The eruption is, undoubtedly, a somewhat rare one, but not nearly so rare, I believe, as some have thought it to be.

Diagnosis.—The only lesions which could be mistaken for *tinea trichophytina cruris*, the mis-called eczema marginatum, are eczema, intertrigo, and a serpiginous syphiloderm. The chief difficulty, of course, lies in the differentiation between simple eczema, or intertrigo, and the parasitic eruption, for the serpiginous papular eruption of syphilis needs only to be borne in mind, in this connection, to enable one to exclude it in any given case, with measurable ease. The microscope is,

undoubtedly, of the highest value in the diagnosis; but oft-times the disease has been so altered by treatment, that the parasitic elements can no longer be recognized, or the microscope may not be accessible, and, in any case, dependence must be placed largely upon clinical features.

In my experience, the itching in this eruption is far out of proportion to its apparent extent and severity; a patch which would be thought to give but little annoyance, will drive the patient almost frantic in his restrained desire to scratch; moreover, scratching and rubbing does not appear to give the relief afforded by the same in eczema, the tickling returns sooner, and is less completely removed by mechanical irritation. Eczema about these parts generally attacks the scrotum more severely than the thighs, and is more commonly attended with thickening of tissues in the former; whereas, in the cases of tinea of this region, when the penis or scrotum are involved, there is little or no thickening, except, perhaps, to a very moderate degree on the well defined margin; and the tendency of the parasitic disease is to attack the thighs far more than the penis or scrotum.

In eczema of the genito-crural region, as in eczema elsewhere, the tendency to recovery is from without inwards, toward the centre of the patch, whereas in the parasitic eruption the centre always tends to clear up first, although there may appear new developments within the healed area. Eczema shades off in many instances almost imperceptibly into the surrounding healthy skin, while in the disease under consideration, the sharply defined border, oftentimes quite perceptibly raised, has a characteristic appearance which, when once seen and clearly recognized, may be looked for and observed in all cases of tinea cruris which have not been too much altered by treatment. The dirty yellowish-brown color of the inner portions which have been passed over by the disease, are peculiar to the eruption as distinguished from eczema.

It is granted, of course, that in individual cases the element of eczema so far predominates that the correct diagnosis may be entirely impossible for a season, even to the practiced eye.

Thus, in Case III of our series, when the patient first came under observation, all the features of the eruption were those of an ordinary, very greatly aggravated case of common eczema of all this region; and the disease yielded, up to a certain point, to remedies directed against the eczema alone; and it was not until two months and a half after his first visit, when all the acute symptoms had subsided, and he considered himself about well, that the parasitic element was discovered. In this case, however, I believe that the tinea cruris was the original trouble which had pestered him for years, at times causing him to get up a severe eczema by scratching.

What is true in differential diagnosis of this eruption from eczema, is more especially true between it and erythema, and the features need not be repeated for that disease.

In regard to the use of the microscope in studying cases of this disease, I do not think that the discovery of a vegetable parasite in the scales is always as easy a matter as it has been represented to be, nor should we, because we fail to find them in any one or two specimens scraped promiscuously from the affected surface, deny at once the parasitic nature of a case. That particular portion may be free from active vegetating elements, and yet contain seeds enough to cause it to break out again at a later period; also, we may not scrape deep enough, the outer layers in which it luxuriates most favorably may have been removed by treatment or by the cleanliness of the patient; or, again, the inflammatory phenomena may be so severe as to obscure the vision of the parasite, this is especially noticed by Kaposi.[1] This writer also gives, as far as I know, the only representation of the parasite growing in the deeper layers of the epidermis, even among the nucleated cells of the rete.

Neumann says,[2] "In an earlier stage of the disease, the fungus is almost always demonstrable; in inveterate cases it is absent as a rule." "In those cases where the infiltration is considerable, and the skin covered with scales and crusts, I

1. Hebra—Lehrbuch der Hautkrankheiten. Vol. II., p. 641.

2. Neumann—Lehrbuch der Hautkrankheiten. 4th edit. Vienna, 1876. p. 639.

could rarely find anything else besides micrococcus and bacterium, with which the epidermal cells were densely packed. It appears that in this, as in all skin diseases dependent on fungus, and having thereby much dried blood and pus, the mycelium gradually perishes, and the cells of bacterium and micrococcus gradually preponderate, from which no higher forms are ever developed."

In the majority of cases, however, presenting clearly the clinical features detailed in this paper, the parasite can be found and demonstrated, if sufficient care and patience is exercised. It may, perhaps, be necessary to allow the disease to remain for a season without treatment to allow the free growth of the mycelium in the outer layers of the epidermis. There is always danger of confounding external elements of fungus with those belonging to the specimen under consideration, and great care is necessary to avoid this. It is also well to bear in mind that the edges of epithelial cells often resemble mycelium, and that fat globules have repeatedly been mistaken for the spores of a fungus.

Etiology.—This leads to a consideration of the etiology of the disease. There is no doubt in my mind that it is frequently a combination of an eczema, pure and simple, or of an intertrigo, and a vegetable parasitic disease, in most instances the tinea trichophytina. I say in most instances, for I have seen cases of tinea versicolor, where the eruption extended as far down as the genital region, and where there were lesions resembling much the so-called eczema marginatum; and in Case III., before alluded to, the parasite appeared to be composed of finer elements than the trichophyton, and the co-incident occurrence of the parasitic disease of the ear, would point to the presence of the aspergillus in this case. I have once observed favus on the penis and scrotum, but it did not take the forms described in this paper, though I do not see why, if the person is a suitable subject, with an eczematous diathesis or tendency, this parasite might not luxuriate in the genital region, and give rise to the compound disease under consideration.

In a number of the cases here detailed, eczema existed else-

where on the patient, but, on the other hand, in case V., where the very general tinea circinata covered almost the whole body, those portions about the genital region partook of the characters of eczema marginatum without there being any eczematous feature elsewhere; the favoring elements of heat and moisture in the parts affected appear to be the most important factors in the disease, besides the parasite.

It is, therefore, difficult to determine in every case how far the parasitic disease, and how far the eczema or intertrigo are to blame for the existing lesion, it is difficult to say which came on the stage first; I am inclined to believe that very frequently the parasite plays the second part in the programme, but soon becomes a prime factor—that is, that there is first an eczema or intertrigo, or a congested and moist condition of the parts upon which the fungus finds its most congenial nest where it vegetates and soon obtains a foot-hold, which nothing that does not exercise a directly destructive influence on its life can remove. Thus, in Case I., the patient had worn a suspensory bandage for a varicocele for several years, from which there had long been more or less chafing, but no serious trouble occurred until the advent of the parasite, a month before his visit. In Case VIII., the patient had had chafing in the crotch for ten or twelve years every summer; this had, however, always disappeared on the advent of cold weather; but when the vegetable parasite found lodgment here, on this appropriate soil, it remained until destroyed by a parasiticide. On the other hand, in a number of the cases, the eruption had persisted for years with aggravations, the disease being kept in check by cleanliness or treatment, or both, the parasite existing there all the time as a permanent cause, as in Case III.; in such cases the variation in the effect is dependent upon the state of the general health, congestion of the hemorrhoidal vessels, heat, exercise, etc.

It will be thus seen how inappropriate is the term *eczema* marginatum, while the addition of the adjective *parasitarium* but heightens the difficulty. It is no more appropriate to speak of a parasitic eczema than it is to speak of a syphilitic eczema; eczema cannot be caused by a parasite or by syphilis.

PROGNOSIS.—I do not think that the prognosis of this disease, in this country, is anything like as serious as it has been spoken of by those who have written of it as observed elsewhere. Our cases are milder and certainly do yield to intelligent treatment in a manner which is generally highly satisfactory to the physician and patient. There is need of caution, however, lest the treatment be discontinued too soon, for relapses will happen unless the disease is thoroughly eradicated. Nor need we wonder at this, considering the extreme minuteness of the germinating spores of the fungus and the possibility, nay probability, of one or more of them being overlooked, perhaps remaining on articles of clothing, giving thus, in reality, a new infection, a new case. Caution should be exercised, therefore, in pronouncing the patient cured before he has remained some months free from eruption.

It must be borne in mind when comparing these cases with the severe ones alluded to by Hebra, McCall Anderson, Fox, and others, that they were all but two of them in private practice, and those two were of very cleanly habits; when comparing the eruption with the severe forms observed in the East, as the Chinese, Burmese ringworm, etc., we recall that the element of a warm climate certainly has an effect in the development of these affections (as several of my cases were decidedly worse in warm weather), and that diseases of the skin as well as other diseases, certainly do present differences of type in different countries, although some have tried to insist that they do not.[1]

TREATMENT.—The cases here given were treated almost exclusively by the free external use of sulphurous acid, as strong as could be procured and used, and, judging from the histories given, nothing more could be desired. In every case it gave immediate relief to the itching, and produced a marked improvement in the appearance, and in some instances it was the only remedy employed from beginning to end, and sufficed entirely to remove the disease.

Some care is necessary in order to procure and use sulphur-

1. Dr. G. Thin on Eczema Marginatum, London Practitioner, July, 1875, and Jan. 1877.

ous acid strong enough. I have often seen recommendations of writers to employ it diluted in various strengths, but seldom have I found it necessary to weaken it any, even for delicate skins, while I constantly see it fail in its action from being too weak. I generally advise patients to buy an unopened bottle of Squibb's sulphurous acid, to open it carefully and fill a one ounce bottle, cork again quickly, and make all the applications from the smaller bottle, which is to be refilled as often as required. I am convinced that much of the sulphurous acid retailed in the shops is absolutely worthless, as the gas either has evaporated, leaving simply the distilled water, or the sulphurous acid held in solution in the water has partially undergone oxidation, returning to sulphuric acid in solution, which, in place of being beneficial, would be prejudicial to such an eruption as the one under consideration. It is necessary, then, to use freshly made acid which has been kept tightly corked, and as this has been my habit for several years, I seldom find difficulty in obtaining the results I desire from it in vegetable parasitic affections of the skin.

In regard to the mode and frequency of its use, I advise the parts to be well saturated with it two or three times a day, there is no harm in applying it much more frequently if it does not inflame the skin, indeed many patients resort to the application of it whenever the itching calls attention to the disease. When it appears to cause irritation it is to be suspended, and such remedies as zinc ointment, or a calamine lotion are to be employed for a time, and on returning to the sulphurous acid, a new and, if practicable, an unopened package, fresh from the manufacturer, should be employed, as possibly the irritation may have been caused by the *sulphuric* acid, developed in the former specimen.

I need hardly mention other methods of treatment which are familar to all. Anderson says he has had best results from the bi-chloride of mercury in solution (gr. ij. ad. ℥j.) ; others recommend ointments of turpeth mineral (gr. xv. ad. ℥j.), or dilute citrine ointment, as also oil of cade, oleum rusci, etc. Goa powder, or poh di bahia, or its derivative crysophanic acid, is a paraciticide of value, especially in this form of disease,

and is highly recommended by some. Hebra and Neumann treat this disease much as they would ordinary eczema of these parts, although recognizing its parasitic nature ; this I believe to be a great error, for while vigorous treatment may succeed in removing the disease mechanically, the results are far less rapid and satisfactory, in my experience, than those of a well directed anti-parasitic plan, and, on the other hand, I may say that most of my patients had been under judicious treatment for eczema with little or no avail, until the real nature of the affection was discovered, and it treated in the method described.

Hebra[1] recommends his modified Wilkinson's ointment (℞. sulph. flor. picis liquidæ, aa ℥iij. saponis viridis, unguent. simpl. aa ℥vi. cretæ prep. ℥ij. M.) to be rubbed in with a brush morning and night for six days, and the parts kept covered with flannel. The surface is not to be washed during this time, nor for three days afterwards ; a bath is then taken. This treatment generally confines the patient to the house, or even to the bed ; when this cannot be done Hebra states that any other treatment must be mainly palliative, and must last for months. In the use of the sulphurous acid I have never seen the patient confined to bed, the treatment is measured generally by days or at least weeks, and not by months.

I have sometimes obtained considerable assistance from an occasional sulphur vapor bath, which, of course, is but a part of the sulphurous acid treatment, in the one instance the sulphur fumes being dissolved in water, in the other they are directly applied to the skin. I have not used sulphur otherwise, as in ointment, nor should I be disposed to try it from what I know of the disease.

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[1] (1.) Hebra—Lehrbuch der Hautkrankheiten—Eilangen 1874—Zweite Aufl. p. 493.

ON SURGICAL USES OF THE STRONG ELASTIC BANDAGE[1] OTHER THAN HÆMOSTATIC.

By Henry A. Martin, M. D., Bv't Lt. Col. and Late Surgeon U. S. Vols.

At the meeting of the American Medical Association in your city last June, I made some extemporaneous remarks on the above subject. At the request of the Committee on Publication I have prepared a written abstract of those remarks, which may appear in the forthcoming volume of the Transactions. I have, however, been so often urged to publish a paper on the same subject for the immediate information of the profession, and the interest which has been manifested both at the meeting and since that time in numerous letters has been so unmistakable, that I gladly acquiesce, and offer the paper for your acceptance as a very slight acknowledgment of courtesy received individually at your hands, and generally at those of the whole profession and people of Chicago.

For over twenty-five years I have made use of a strong bandage of India rubber, for the treatment and cure of all ulcers of the lower extremity of a non-specific character,

1. The bandage I use resembles Esmarch's. I, however, call it the strong elastic bandage, for I used it continually very many years before the discovery which has immortalized an already illustrious name. I did this without the slightest notion that by such a bandage the deep arterial circulation of a limb could be entirely controlled, indeed with a very decided theoretical conviction that it could *not*, and therefore have no claim whatever to Esmarch's discovery. Many years ago I twice recommended the elastic bandage to surgeons about to amputate legs, as a substitute for the common roller bandage often used to expel blood from a limb *before* and so save it for the patient *after* amputation, but my suggestion was disregarded. That is the nearest I ever came to making Esmarch's great discovery.

coming at all within the category of curable, and as a most efficient aid to treatment and palliation in those of a specific character and those incapable of perfect cure by any method of treatment; and I may here say that a very large proportion of ulcers of the lower extremities practically incurable by other methods are capable of easy and permanent cure by this.[1]

The bandage which I use in the treatment of ulcers of the leg, is made of what is technically called "pure rubber," i. e., the best "Para" rubber, combined with the smallest possible mixture of sulphur, and subjected to the minimum of heat necessary to "cure" the gum and ensure it from the destructive changes which rapidly take place in bandages made of

1. I use such a bandage in the treatment palliative and curative of many other diseases and injuries, principally of the lower extremities; but of these I will, at the present time, give only a partial list, reserving a detailed account of its application to such cases for a future paper. The present writing will refer exclusively to the treatment of ulcers of the lower extremity. The principal cases, other than these, in which I have found such bandages eminently useful are, (and I mention them in the order of their importance, and the perfect applicability of this method to their treatment); (1.) Acute and chronic synovitis and consequent effusion in the joints, particularly of the knee, ankle, and elbow. (2.) Subluxations of those joints to which the bandage can be applied, both in their acute and chronic stages. (3.) Morbid effusion in the bursa mucosa, especially, after evacuation by aspiration, of the bursa developed over the patellæ, and known as "housemaid's-knee," and by other names. (4.) Œdema and anasarca, whether due to local or general causes, and occurring in either the lower or upper extremity, but chiefly, of course, the former. (5.) As an admirable palliative, and even in some instances, to a certain degree, means of curing varicose veins of the lower extremity, occurring either with or without ulcers. (6.) As a most efficient adjunct to treatment of erysipelas of either the legs or arms, whether traumatic or idiopathic, and, in very many cases, capable, without other means, of entirely curing, and, as it were, *extinguishing* that so called "*ignis* sancti Antonii." (7.) As a very valuable adjunct to the treatment of many cutaneous diseases, particularly when affecting the lower extremity, and as, without any other means whatever, local or general, absolutely and completely curative of many of these affections and their consequences. (8.) As a very useful surgical dressing after dislocation of any joint to which it can be applied, but particularly those of the knee elbow and ankle. (9.) As an extremely useful surgical dressing for some cases of that form of lesion entitled "green-stick-fracture," in which a

pure uncured caoutchouc. The bandage is ten and a half (10½) feet in length ; three (3) inches wide, and of the thickness of no. twenty-one (21) of Stub's wire gauge. In about two inches of one end a piece of strong linen cloth is inserted. To this is strongly sewed a stout double tape of eighteen (18) inches in length. It is important that the edges of the bandages should be perfectly even, and this can only be accomplished by cutting them by machinery. The bandages I now use, are, with the single exception of attaching the tapes, prepared at the factory in which the sheet rubber is manufactured. In my first experiments, I attempted to make the bandages by cutting them, with strong, sharp shears, from the rubber sheet; but in this way it was impossible to produce

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gradual, continually exercised, gentle pressure accomplishes that perfect "reduction" which cannot always be accomplished at once even by painful and unduly violent manipulation. Also in cases of deformity of bones from improper co-aptation of fracture, where the "callus" is too firm to admit of immediate bending, this sort of bandage, properly applied, has been found quite capable, by the constant, steady pressure which it exercises, of correcting deformity in fractured bones, even so long after injury as to be generally supposed capable of such correction by no means save that of re-fracture. (10.) As a most useful appliance eminently palliative, and sometimes even to a great degree rapidly and completely curative of injury of the ligamentous and other tissues of joints, resulting from contusion or other injury, or from relaxation of ligaments from disease. (11.) As a most efficient palliative of, and often decided means of remedying chronic and acute inflammation of and about the joints or other parts of a limb; in phlebitis; as a preventive when abscess is threatened, or, in such cases, when too far advanced for prevention, as a means to hasten forward the process of suppuration. This enumeration of cases in which the strong elastic bandage has been found, *in actual practice*, very decidedly useful, although somewhat extended is, by no means, exhaustive. When the intelligent practitioner becomes familiar with, and reflects upon, the phenomena observed after the bandage has been applied; the effect of continuous, gentle, equable pressure, of perfect exclusion from air and light, of the constant moisture and equal warmth of the part involved in the bandage, of the constant support afforded to distended and weakened vessels, the relief of congestions by the mechanical expulsion of blood from the overloaded veins and capillaries, he will have little difficulty in perceiving the value of this method of treatment in the cases I have mentioned, and many others. I shall, at some future time, write a paper or two based on my personal experience in the use of the bandage for other cases besides those of ulcers of the lower extremity. At present I only wish to intimate what some of these cases are.

a bandage that would wear for any great length of time If there is the slightest notch in the edge, at that point, sooner or later, generally very soon, the bandage will tear, and become useless, while the machine-cut, perfectly even-edged bandage will bear continued and indefinitely repeated traction without any danger of such an accident. It is really astonishing how long such a bandage will wear. Many of my patients are wearing those, which have been in constant daily use for two, three, and even four years; and I have cured several successive poor patients with bandages which still remain serviceable. The length and width stated are those I have found suited to the vast majority of cases. In a few instances of extraordinary size of a limb, a width of three and a half, or even four inches, and two or three feet of additional length may be desirable. In cases where the leg is very slender, the length I mention will be more than is needed, but the superfluous bandage may be wound round the leg under the knee, or, of course, cut off to suit the exact requirements of the case.

I need not relate how I gradually came to the conclusion that such a bandage as I have described, *without any other means or appliance whatever*, is all that is necessary for the perfect and *permanent* cure of all curable non-specific ulcers of the leg. Such is the fact, and I have no hesitation whatever in asserting that all former other methods of treating such ulcers may and should be abandoned entirely, no matter how illustrious their authors. I dare say such an assertion from an obscure private practitioner may appear presumptuous, but it is very deliberately made. For twenty-five years I have been constantly observing cases of every variety of ulcer of the leg under treatment by the strong elastic bandage. During those years, I have had ample opportunity to observe the results of other methods of treatment; and before I fully adopted my present practice, had frequent and full personal experience of the infinite trouble to the surgeon, tediousness of duration of treatment, and insecurity and want of permanence of result from the treatment of such cases by Baynton's and other familiar methods. I am fully aware of the importance and value of the

means I advocate, and very solicitous that the profession should, at any rate, test the truth of what I assert by the practical use of the bandage. I wish that the announcement of this method of treatment might have the advantage of coming from one of those recognized authorities and magnates of the profession, who have forced so many worthless methods into practice, simply because they were *their* methods. "Truth is great and *must* prevail." It is a sweet consolation to believe this axiom, but the highest and best truths, coming from obscure and unknown sources, are very apt to be disregarded, while error and fallacy, backed by a mighty name, are eagerly hailed and adopted. The method I advocate is so easily tested, a single case of ulcer of the leg carefully observed will demonstrate its advantages clearly and perfectly, and as people with uncured ulcers of the leg abound everywhere, I cannot help hoping that, although I am unknown in every way as an authority, the method will be fairly tried, and win, by its intrinsic and evident merit, a permanent place in surgical practice.

The bandage is to be applied by taking one turn just above the ankle, then one over the instep, round the sole of the foot, then round the ankle and, spirally, up over the leg, to the knee, at which point what remains unapplied should be wound round the limb, and the tapes firmly tied. Each turn should overlap that before it from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch. No skill whatever is requisite, as the bandage is simply carried round and round, without any of the nice reduplication which is necessary for the proper and useful application of the ordinary bandage. The best time to apply it is the first thing in the morning, before the veins of the leg have become distended from the impeded column of blood. The very best way is for the patient to apply it in bed, before assuming the upright position. If, in these circumstances, the bandage is applied with just enough snugness not to slip down, it will, at once, on the patient standing up, become of exactly the right degree of closeness of application. This is all that need be said in regard to the application of the bandage. Thus applied, it will remain unmoved during the whole day, no mat-

ter how active and continual the exercise or labor of the patient. A theoretical objection to be met is that that portion of the foot below the bandage must become œdematous. Such certainly would be the effect, of an ordinary bandage, applied with sufficient tightness to be of any use, but the fact is, that no œdema follows the proper use of the rubber bandage. Indeed, in some cases of ulcer of the leg, a certain degree of œdema of the foot is found, due to the weakened and distended veins, and consequent impediment to the circulation. This œdema is rapidly removed by the use of the strong elastic bandage. These facts are illustrative of the reasons why its application alone is so entirely sufficient for the best possible treatment of the varicose ulcer. That sort of ulcer and the œdema often accompanying it, are due to the too great quantity of blood in the limb. The bandage expels the superfluous blood, and while it supports the weakened walls of the distended veins, does not stop, but really facilitates the circulation through them. The pressure exercised by the bandage is a very efficient means towards the absorption of interstitial deposits, serous or fibrinous, effused among the tissues of ulcerated legs.

The patient wears the bandage all day. At bed-time it is to be removed. When this is done, its inner surface and the skin, which it had covered, will be found bathed in profuse sweat; this is to be wiped from the limb with a dry cloth. A bit or bits of thin, soft, old linen, moistened with castor or sweet oil, is to be laid on the ulcerated spots, and kept in place by a few turns of cotton roller bandage. This is the treatment, with recumbent position all night, and the bandage and the erect position all day. The bandage should be wiped with a wet sponge, and hung up to dry, or, of course, it may be wiped dry at once, and rolled up, with the tapes inside, for use on the following morning. This is the whole treatment I have employed for the permanent and solid cure of many hundreds of ulcerated legs, during the past twenty-five years. Now and then, a peculiarly diseased condition of the skin has led me to recommend a daily or less frequent washing with Packer's

tar soap[1], and occasionally a carbolized, or other solution where there was an intensely itching condition of the surface. As I am writing for physicians, I need not enter into details of treatment of exceptional cases. What is required by the peculiar complications of certain cases will suggest itself to the intelligent practitioner. For ulcer of the leg, *uncomplicated* by other disease of the skin, the bandage alone is all that is needed.

During the first two or even three weeks that the bandage is used, a more or less numerous crop of papules will appear on the skin to which it is applied. These run, rapidly, into suppuration, discharge their contents and disappear. Generally they are small, but occasionally larger, and now and then of the character of small boils. Whatever their size or number, the best possible treatment for their resolution is by the bandage. This is practically the best possible poultice. In a wonderfully short time these little pustules run their course in the warm moist atmosphere under the bandage. Each of these pimples or pustules represents an obstructed follicle or duct. After they have ceased to appear, the skin becomes and remains entirely unobstructed, no matter how long the bandage is worn. A few patients cannot, or *think* they cannot bear the rubber next the skin. In many hundreds of cases, I have met but three or four in whom there was a want of perfect and easy tolerance. In these exceptional cases I was obliged to wind the limb with a linen bandage, over which I applied the rubber. Only one of these exceptional cases was of ulcer of the leg; the others were cases in which the bandage was applied for disease or result of injury of the knee joint. I have said that the strong elastic bandage *alone* is all that is needed for the successful treatment of all non-specific

1. I have found "tar soap," which contains a large amount of tar, properly saponified, of very great value in certain diseased conditions of the skin, and rectal and vaginal mucous membranes. A great deal, however of so-called tar soap is so merely in name, and intended for toilet use. I formerly used the Hamburg Thev Seife, which answers very well, but is absurdly expensive. For two or three years, I have made use exclusively of Packer's tar soap, an American product, far superior to even that from Hamburg, and sold at a very reasonable price.

ulcers of the lower extremity. I repeat it with the utmost confidence based on a very large and long experience. One and the chief reason that I have so long forborne to communicate to the profession a method which I consider so valuable was that I wished to accumulate such a number and variety of cases in which it had been successfully employed as would leave no room for doubt, and, being quite without the vast facilities afforded by hospital practice, such accumulation was a gradual process.[1] The form of ulcer which yields most readily; with a rapidity which is sometimes really wonderful, is that most common of all, the varicose ulcer. The reasons for this are obvious. That sort of ulcer is caused and maintained by malnutrition of the skin from the engorged, impeded circulation, which is at once relieved by the bandage. In those cases caused by a languor and imperfection of circulation in the legs, from deficiency in quality or quantity of blood, or feebleness of the heart's action, the bandage accomplishes a cure by the warmth and moisture it secures, favoring the circulation in the cutaneous capillaries and inducing a *removal* of blood to the surface. In these cases, familiar to all surgeons for their obstinate resistance to treatment and the imperfection and unreliability of their cicatrization, the ulcers called by Hippocrates, and the classic surgeons "Chironian"[2]—round or

1. During most of this time, although I have spoken very freely to physicians of my use of these bandages and furnished them with opportunity to test their usefulness, and, in this way, the method has become widely known, I have never hitherto published any of the results of my experience. I have never, in a pretty extensive reading of periodical medical literature, met with any account of the use of the strong elastic bandage in the way I recommend. In the London *Practitioner* for May, 1876, there is a very brief paper entitled "Use of blisters in chronic ulcers," by S. D. Turney, of Circleville, Ohio. It has nothing to do with blisters, but *is* a very interesting record of the very rapid cure of five or six bad ulcerated legs by applying Esmarch's bandage every day as tightly as could be borne by the patient, for a very *short* time. So far as I know, the paper has attracted no notice or comment, but it notes an important fact, and I refer the reader to it, as, to a certain extent, corroborative of what I have written.

2. *Chironian Ulcer*, So called because so difficult of cure that Chiron (who taught Apollo fiddling and physic) alone, or one his equal, might cure it.

roundish, with perpendicular sides, as if punched out of the whole thickness of the much-thickened skin, with hard, white, scathing, often almost cartilaginous edges, yield to the bandage and to that alone, and with far more perfect and stable results than by other methods of treatment, but they are cured much more slowly than any other variety of non-specific ulcer. Before anything like *reliable* cicatrization of these ulcers can occur, the hard edges must be entirely got rid of. The constant pressure of the strong elastic bandage is an efficient agent in promoting the absorption of this impediment to cure; but it is a slow process. In such cases I recommend that the patient should wear the bandage night as well as day, while in the very large class of ulcers caused and maintained by a varicose condition of the veins, I direct the bandage to be worn only during the day, as before stated.

In, perhaps, the worst *curable* case I ever saw of this inveterate sort of ulcer, in an old, feeble, ill-nurtured patient who had been, off and on, under treatment for nearly nine years, whose ulcer had been nominally "cured" again and again, and in each instance, almost immediately on resuming labor, the cicatrix had broken down, I used the bandage alone as a test case. Of course I could have much expedited the cure by removing the gristly border of the ulcer by caustic, or the knife, but I depended on the bandage only, and in four months, during which the patient continued to labor without any intermission, his ulcer was solidly and well healed, and has now, for nearly five years, remained so. I may say here that not only with this method is the patient *allowed* to continue his ordinary avocations, however laborious, but is much better able to work while wearing the bandage than he would be without it. This is particularly to be noticed in all varicose conditions of the leg. I have had many cases in which it was only by wearing such a bandage that a patient could do his daily work. I shall refer to this point again in a future paper, in which I hope to demonstrate the extreme value of these bandages as a palliative in cases of varicose veins of the leg, *uncomplicated* with ulcer. I am aware how hastily and roughly this paper has been thrown together, but I believe it

indicates pretty clearly my method of treating ulcers by the strong elastic bandages, and my perfect confidence in that method, and that is its entire end and object. If it attracts the notice of the profession, and leads to a practical approving of a method so easily tested, I shall have accomplished what I wished and intended. In another paper, prepared at the request of the publication committee of the American Medical Association, I have described six cases illustrative of results of treatment of a variety of ulcers, and other diseases and injuries. I suppose that paper may be published in due time, and to it I refer the reader. I would also say that I shall be very happy to answer any inquiry as to points connected with the subject on which my readers may wish to be informed.

27 Dudley street, Boston, October 1st, 1877.

Postscript.—Since my return from Chicago, and as a result of my remarks at the meeting there, I have received very numerous applications for bandages, and for the address of a dealer from whom they could be obtained. To meet the requirements of the profession I have made arrangements with Messrs. T. Metcalf & Co., 39 Tremont St., and Messrs. Leach & Greene, 1 Hamilton Place, Boston, who will, in future, have always on hand an ample supply of bandages for the leg, made under my direction and inspected by myself. These gentlemen will also keep on hand bandages of the exceptional length and breadth I have alluded to, and also the bandaging of which any required number of feet may be obtained for the very varying requirements for the different joints.

I find, on reviewing what I have written, that I have omitted to state that, after cure of varicose ulcer, many of my patients, whose occupations require much standing or walking, continue to wear the bandage, both for the relief of their varicose veins and as a preventive of a return of the ulcer. Other patients I recommend to resume the use of the bandage if there is any symptom of return of the ulcer, or if they are obliged to be much on foot.

A CONTRIBUTION TO LARYNGOLOGY. — TWO CASES OF DISEASED ARYTENOID CARTILAGE TREATED BY LOCAL DEPLETION.

By E. Cutter, M. D., Cambridge, Mass.

Case I.—A middle aged lady, residing in Newton, Mass., complained of hoarseness, partial loss of voice, dysphagia, cough and throat distress. There was no difficulty in breathing. She was placed under the writer's charge, for examination and treatment, by Prof. Field; and, on inspection with the mirror, the larynx was found to be normal, except that there was a large, red, pear-shaped enlargement of the tip of the left arytenoid cartilage. The right cartilage was of normal size. The left was of the size of a cranberry, or more definitely, from $\frac{1}{2}$ to $\frac{5}{8}$ of an inch in diameter. To the touch it felt hard, but not stony, and was movable from side to side. The question of malignancy was raised, but not sustained by the rational signs. It was, therefore, concluded that the enlargement was not carcinomatous, but hypertrophic; and the subsequent history has sustained the conclusion, as ten years have now elapsed since the patient's recovery.

Satisfied as to the character of the growth, the next question was that of treatment. The writer had then never seen, heard nor read of such a case. The entire subject of laryngology was then in its infancy; and, as a consequence, having no guide, either from experience or history, the treatment was conducted on general principles.

Hypertrophy of the periarytenoid tissues, accompanied by congestion of the blood vessels, involves an enlarged and dilated condition of the capillaries, by blood accumulation, resulting in an altered condition of nutrition, the vessels being, as it were, paralyzed by mechanical distension. By dividing

the vessels they would be enabled to unload themselves of their contents and to contract to their normal caliber. Thus they should regain their tonicity and subsequently proceed to a better discharge of their functions. Whether this reasoning were right or wrong, it became really a part of the history of the case, as explaining the course that was pursued. A knife was specially constructed, by Messrs. Codman & Shurtleff, of stout, flattened steel wire. The end was sharpened, like a lancet, on both edges. Two inches from the distal extremity, it formed an angle of 120°. When in position, the flattening was lateral, so that the greatest strength of resistance was in the direction of the thrust. The operation of local depletion was practiced two or three times a week for two months, as follows: the patient was seated as in ordinary laryngoscopy, and the throat was illuminated by natural or artificial light. The parts being exposed to view by the laryngoscope, the special scarificator was then introduced, guided by the eye. Incisions were made freely over and into the substance of the swelling, until the hemorrhage amounted to a mouthful or more. The evacuation of the blood was followed by considerable relief to the local symptoms and subsidence of the enlargement, resulting in the complete relief of the patient.

Since this paper was written, Prof. Field has informed the writer, that the disease had not recurred, and the cure was permanent.

Remarks.—The general tendency of medical opinion is against depletion ; but it is surely an error to desist from its use in chronic engorgements and infarctions. In the present instance, it not only did no harm, but was followed by the happiest results. It should be stated that no pus or serum was discharged, but only blood, and no abscess resulted. The writer has been in the habit of scarifying every local chronic congestion in the throat, and has never yet seen any reason to regret such a course, for incisions of this sort heal very readily, and result in relief from pain. They do good, apparently, by emptying engorged vessels, by relieving the semi-paralyzed condition of their walls, and by allowing them to resume their functions. In the condition of natural tonicity, a capillary will admit, at

a time, but one red blood corpuscle, though when congested, it may admit many. When long distended it ceases to respond to such external stimuli as the topical application in common use. It cannot contract, because it is weakened by distension. Divide the vessel, permit the escape of its contents and contraction becomes possible. Its distension removed, the vessel is enabled to perform its normal functions and becomes obedient to those natural laws of the body whereby tissue material is deposited and taken up, so that the symmetry of each organ is not altered.

Case II.—Left arytenoid cartilage enlarged, solid and mobile. Sleep rendered impossible by a sensation of suffocacation. Tracheotomy. Removal of tube. Death.

A medium-sized, robust Irishman, 24 years of age, complained of his throat. He had no pain, but suffered from a dry, irritating, convulsive cough, altered voice, dyspnœa, dysphagia, and complete suffocation on falling asleep. The only source to which he could ascribe the trouble was a severe cold contracted a month or more before consultation with the writer. The loss of sleep was the most prominent difficulty; for although he could fall asleep at any time, this condition would be soon disturbed by the sudden occurrence of a sense of complete suffocation, and the patient would be aroused by the efforts put forth to restore respiration.

His general health had not suffered much impairment. Phonation was peculiar, its tone being coarse, gruff and muffled. Inspiration was noisy; expiration noiseless. On laryngoscopic examination, the throat was found to be injected and reddened. Behind the tongue, on the left side, was a whitish globular mass, covered with thin mucous membrane, the tissue beneath resembling cartilage, while the surface was unbroken, smooth and even. This tumor was about as large as an ordinary marble. It was attached below and touched the posterior pharyngeal wall and the back part of the tongue, overhanging the larynx from the left side, so that it was difficult to see the vocal cords, which were found to be intact and normal. The tumor was mobile. When pressed upon, it would wabble

over onto the larynx and stop it as completely as if by a ball-valve.

The right arytenoid cartilage was normal; the left, lost in the tumor. Judging from appearances, after a careful examination, it was decided that the growth resulted from an enlargement of the arytenoid cartilage, and this opinion was confirmed by several other physicians who examined it. It was also thought to be carcinomatous, for the following reasons:

1. It so much resembled a case of schirrus of the skin that occurrred in the practice of my late honored father, Dr. Benjamin Cutter. The patient I refer to was a married female, about 50 years of age, suffering from undoubted cancer of the uterus. Beneath the integument of the thorax and abdomen were ten or twelve hard, globular, whitish, movable bodies exactly resembling white marbles.

2. A case occurred in the writer's own practice where similar tumors were developed upon the scalp, which the patient called "horns," as they felt very much like the rudimentary horns of calves. After death it was found that they penetrated both tables of the skull, leaving, after removal, circular openings, extending to the dura mater, as clean cut as if made with a trephine.

In the way of treatment it was decided to try the effects of scarification, encouraged by the good results obtained in the first case. This was faithfully employed. But it was difficult to obtain a mouthful of blood at any sitting owing to the stony hardness and mobility of the tumor, all efforts proving a failure. As a result, the patient's general health began to fail. He grew weak, thin, and nervous from want of sleep, and, finally, could hardly keep awake long enough to permit of the scarification. But no sleep was possible for him, as the consequent and complete closure of his larynx would not permit of it. Fearing that this continual loss of sleep would result fatally, counsel was had, and it was decided to perform tracheotomy in order that the tumor might be allowed to remain at rest, some sleep be secured and a chance for recovery be eventually afforded by quieting the irritation of the larynx. The operation was done with immediate relief

and proved to be a critical one. The writer was over-ruled in the choice of an anæsthetic, believing, as he did, that ether would produce such a flooding of the mouth with the secretions of the salivary, parotid and other glands of the buccal cavity, that suffocation would result when insensibility occurred. The objection to the chloroform, however, was so strong that the patient was etherized, and what had been feared immediately resulted. Respiration and cardiac pulsation instantly ceased, and the body become as rigid as a cadaver. It became necessary to make the section of the skin, fascia, muscles, and cartilages of the trachea while feeling at the bottom of a well of blood, regardless of nicety of dissection and hemorrhage. A metal tube was soon inserted into the trachea and rapidly filled with blood. By means of an India rubber tube attached to a syringe bulb, the blood was removed and respiration reestablished. The patient rapidly recovered, lost his anxious countenance and enjoyed a quiet and refreshing sleep.

The effect upon the tumor of the artificial opening, was absolutely nil. While it did not increase, it certainly did not diminish in size. In order to obtain a change of air the patient subsequently removed to Ohio, and while there he consulted some one who told him that if he had been properly treated at first, he might have been cured. In accordance with the advice then given the tube was subsequently removed as useless! In a short time the man choked to death.

Remarks. These two cases illustrate a common experience; of two patients similarly affected and similarly treated, one is relieved and the other not. Both were treated ten years ago. At the present time should I have occasion to treat a patient affected as in the last instance reported, it is probable that I would attempt to remove the growth, after tracheotomy, by the galvano-caustic wire.

Boston, Mass., 13 Temple St., July 31st, 1877.

Translations.

THE TREATMENT OF THE ACUTE INFLAMMATIONS OF THE MIDDLE EAR.

By Dr. Weber-Liel.

[Translated from the Deutsche Zeitschrift fur praktische Heilkunde. By Dr. F. C. Hotz.]

The following remarks relate to an otological topic which is of especial interest to practicing physicians. This paper is principally written for the non-specialists.

Many mistakes are made in the treatment of those acute aural diseases which are so often met with, in the practice of every physician. These errors do not always arise from a lack of knowledge of well founded doctrines, but rather from the fact, that the doctrine of the acute aural affections, and especially of the acute inflammations of the middle ear, has not yet been brought into satisfactory shape. The experience of many years of special practice has led me to adopt a different view and treatment, in many points, of the diseases in question, as the teachings of the text-books of acute inflammation did not prove satisfactory to me. I beg to differ with the opinion of those who believe that the acute inflammation of the ear always shows the same character.

They are not always the simple idiopathic affections for which the same remedies have the same effects. Undoubtedly all my professional colleagues have had the sad experience that in some cases the inflammation took a most pernicious course; the earache did not abate, and the hearing power was completely destroyed, although hot water was instilled into the ear with the utmost care, as frequently as recommended; although leeches were repeatedly applied in front and back of the ear, and in spite of cold applications, air douche, fomentation, gargles, and paracentesis of the membrana tympani. And if these remedies were only always applied! But often

physicians believe that they have done all in their power by applying a blister behind, or warm poultices upon the ear.

As I said before, my remarks are addressed to those physicians who are not engaged in special aural practice, and are not very familiar with the use of the otoscope. It is my firm belief that many and especially acute cases can be promptly relieved without the use of the otoscope.

Let us first consider those inflammations which so commonly originate from a severe cold, in winter as well as in the warm season. A person who has been afflicted with chronic pharyngitis is taken with a violent cold in the head. During the act of deglutition, he often feels an uncomfortable strain and soreness in the region of the ear, or in the course of the Eustachian tube; he has a sensation of fullness in the ear and a heaviness in the head, and occasionly shooting pains in the ear. These symptoms, and the failure of the Valsavian experiment (the attempt to force air into the middle ear through the Eustachian tube while the mouth and nostrils are closed) clearly indicate that inflammatory irritation has extended into the middle ear. Usually it is confined to one side. Sometimes it happens that the patient trying to blow his nose, feels a sudden, severe, stinging pain in one ear, attended with the sensation as if a foreign substance had got behind the membrana tympani. This uncomfortable sensation continues, and in the subsequent night the patient awakes with earache which does not abate till toward morning. But the ear remains sensitive also during the daytime; the hearing is muffled and there is a roaring noise in the ear. Under favorable circumstances these symptoms gradually subside. With some patients, however, the sensation of fullness, the roaring noise and deafness continue. At night the ear begins to ache again, and the pain will not cease again until a purulent discharge appears in the external meatus.

The membrana tympani, in these cases, has become perforated in consequence of a violent otitis media caused by mucopurulent matter which had accidently been blown from the Eustachian tube into the hyperæmic tympanum. During a severe naso-pharyngeal catarrh, the otitis media has, in many

cases, a different origin. In leaving a hot room the patient exposes one ear to a draught of cold air, wind or rain; or he has been sitting in a draught, one side exposed to the open window. At once he experiences an uncomfortable feeling over that side and in that ear. Again it is at night time that the patient is awakened by earache, which does not subside until the discharge of a sero-purulent secretion from the external meatus shows the drum membrane has been perforated. This perforation may take place within a few hours, or after a few days during which time the patient suffers great pain and cannot rest or sleep. The external meatus soon becomes involved in the inflammatory process as is shown by a tumefaction of its texture.

The region in front of the ear is, as a rule, very tender, especially on pressure of the tragus; but the mastoid region becomes sensitive to pressure only, if the affection has lasted some time or been improperly treated. Such cases are simple catarrhal inflammations of the middle ear.

Under a half way proper treatment they will get well within two to six weeks, the at first copious otorhœa gradually decreasing. In a healthy, robust person the loss of substance in the membrana tympani is very limited, the perforation is closed by cicatricial tissue with or without adhesions; but more or less deafness remains, which very seldom disappears spontaneously.

What shall a physician do, residing in the country, unable to procure the services of a specialist, to prevent the otitis from running such a course as to jeopardize the functions of the ear, or even the life of the patient? In the first place, he shall employ the water douche, and then the air bath. For which purpose two instruments are required, which every practitioner ought to possess; viz., the *naso-pharyngeal syringe* and the *air bag*. The latter being for the removal of the secretion from the tympanic cavity, and the syringe for cleansing the naso-pharyngeal space. If the syringe is used previous to the air bath, the latter will be more successful, as it is then sure not to carry any mucus from the orifice of the Eustachian tube into the tympanic cavity. The bulbous nozzle of the syringe charged with a warm solution of common salt or ammonia, is

passed into one nostril of the patient, and the syringe emptied by a moderate pressure upon the piston. The lotion is injected into the nasal cavity, whence it passes into the pharyngeal space toward and into the tubal orifices, and after washing away any mucous which may have gathered on these parts, the liquid returns through the other nostril. One must, however, be very cautious in using these injections, for, if too much force be used, or the other nasal cavity be obstructed, the fluid might be forced into the healthy middle ear, causing inflammation. The cleansing of the naso-pharyngeal cavity is followed by the air bath. The bulbous nose-piece of the air bag is firmly inserted into one nostril, the patient takes a little water into his mouth, and swallows it at a given sign (1, 2, 3), while at the same instance the surgeon suddenly compresses the bag. In this manner the air in the naso-pharyngeal cavity is condensed, and will during the act of deglutition escape into the middle ears, provided the Eustachian tubes are not completely obstructed.

This experiment must be repeated several times in succession, after which the patient usually feels greatly relieved. For if the membrana tympani has not been ruptured yet, the tympanic cavity has received a fresh supply of air and been relieved of the abnormal tension and pressure. In young persons, and especially in children, the effect is usually instantaneous; the earache ceases and pressure upon the tragus is not painful, at least, for some time. In some cases, even the morbid process could be aborted, and the suppuration prevented by the repeated employment of the water douche and air bath. Where the membrana tympani has been perforated, the air and water bath serves to cleanse the ear of the purulent secretion, which after this operation is often seen to flow copiously from the external meatus.

A second local remedy in the treatment of catarrhal inflammations of the middle ear, is the application of cold on the ear. Leeches have repeatedly been recommended to be put in front of and behind the ear; but my experience is that they afford temporary relief only, and in many cases do positive harm.

The favorable influence of cold is usually very marked. A small towel is folded, to the size of from six to nine inches square, soaked in cold water, and wrung out well and put on in such a manner that it covers the posterior portion of the face, the ear and the side of the neck. The wet towel is covered with a dry woolen cloth. After half an hour the wet cloth is changed. The change of dressing must be done so quickly as to leave the ear uncovered but a second, as otherwise the patient might catch cold. After a few applications the pain abates. They need now to be changed only every one to two hours, but must be continued for one, two or three days, till the pain does not return. As the pain grows especially severe at night, it is advisable to change the wet dressing oftener after six o'clock in the evening, until the patient sleeps. For simple, uncomplicated cases this local treatment is all that is needed; besides the regulation of the bowels, which always must be attended to.

But in other cases this treatment will not prevent the pain from returning at night and depriving the patient of sleep. Many physicians then, as I have observed, resort to hypodermic injections of morphia, in the region of the ear. No doubt sleep is thereby often procured. But my experience has taught me, that in excitable persons, women particularly, the morphine often produces a morbid nervous irritability, and and gives rise to complaints more troublesome than the original affection; viz., toothache, neuralgia in the ramifications of the fifth nerve, spasm of the masseter and cervical muscles. For internal medication, I can highly recommend the oil of turpentine, to be given in capsules, each containing from 10 to 12 drops; three capsules are taken at noon, and five or six in the evening. The turpentine is continued for two or three days only; nausea and dizziness do not contra-indicate its further use. But if the earache does not subside in the first night, the remedy may as well be discontinued. For children, who are so often seized by earache at night, due to catarrhal inflammation, I prescribe the iodide of potassium. The pain once over, it is only necessary to use the air bath once daily, and to remove all secretions from the external meatus by

means of a soft camel's hair brush; the meatus is plugged with cotton and the ear is covered with a cloth. Every two or three days the ear may be syringed with a weak solution of salt.

By this treatment the catarrhal inflammation will completely subside within six to fourteen days, even if the membr. tympani has been perforated and a purulent secretion is discharged from the external meatus. But in order that the hearing power be completely restored, the air douche, with *Gruber's new method*, had better be continued. At the moment when the air bag is suddenly emptied into the nostril, the patient pronounces such syllables as hick, hack or huck, giving particular stress to the enunciation of the k. When, during this experiment, the patient's head, with the affected ear up, is inclined to one side, the air can be distinctly heard to whistle through the perforated membr. tympani. Children need neither swallow water nor enunciate the above syllables, to make the air douche successful; for their Eustachian tubes will be opened by the strain of the pharyngeal muscles, during the act of crying and screaming which is almost inevitable. Should the muco-purulent discharge continue over one week after the painful stage is passed, have the spiritus vini rectificatus may be employed, as I recommended it for the treatment of chronic otorrhœa, years ago. The ear, having been well cleansed, is filled with lukewarm alcohol. If it enters the tympanic cavity it creates an acute pain, which, however, lasts but a minute, and after several applications is not felt at all. By the application of the alcohol the purulent discharge disappears, often most rapidly, and the cicatrization is greatly hastened.

There is a considerable number of acute inflammations of the middle ear, which undoubtedly cannot be accepted as simple catarrhal affections. In these cases the pain is usually very severe, irradiating over the whole head, and depriving the patient of his nightly rest. The exacerbations at night are particularly marked. In the simple catarrhal inflammation the earache subsides as soon as the tension and pressure are relieved by the escape of the pus through the perforated membr. tympani. In the cases under consideration, however, the

otorrhœa does not give any relief. It even happens that the patient's attention is not called to the ear as the seat of suffering, until a discharge from the ear is noticed; for the pain extending over the whole head and face, and the sensitiveness of every movement, make the patient believe he is suffering from rheumatism, rather than an aural affection.

The air bath, and all other remedies mentioned above, give but temporary relief, the cold water dressings proving even harmful. The inflammation soon involves the meatus externus. The region in front of the ear as well as around it, becomes tender; the integument over the mastoid process being red and swollen; in fact, all the symptoms indicating, even to an inexperienced observer, that the inflammation has proceeded from the periosteum of the meatus externus to the mastoid process, or has already implicated the mastoid cells. High fever generally accompanies this affection. This inflammation is very dangerous. It attacks almost exclusively adults, especially cachectic individuals and persons who have had syphilis, or have repeatedly been troubled with rheumatism. I have observed cases[1] in which such inflammations of the ear alternated with rheumatic pains in other parts of the body. And I am surprised that other writers have not yet emphasized the rheumatic nature of certain acute aural diseases.

Although the air bath affords but transient relief, it must not be neglected. Cold applications must be avoided. The only local remedy which will relieve the earache is the application of warmth, either in the shape of warm cloths covering the whole side of the head, or as warm poultices; they must be changed often and quickly, in order to prevent the head from becoming cold. It is important to cause a free action of the bowels and the skin. For internal administration I prescribe quinine and salicylic acid.[2]

It is surprising how the most violent earache subsides un-

1 See my book on Progressive Schwerhörigkeitsformen.

2 ℞. Quin. muriat.
Ac. salicyl. aa 0, 3.
Sod. bicarbon. 0, 06.
Three or four powders to be taken daily; the last one at 7 P. M.

der this medication, so that the patient is again able to rest at night. In other cases, however, large doses of turpentine seem to operate with better effect. If either treatment proves inefficient, I have found the carbolic acid to be a valuable means to subdue the inflammatory symptoms and the painful exacerbations. Hypodermic injections (one part of carbolic acid to ten parts of water) are made into the most tender spot behind the ear, every morning and evening.

Should all these remedies fail to reduce the inflammation, which is sometimes the case in cachectic persons—should the tumefaction over the mastoid process increase instead of decreasing, the surgeon must not hesitate in making a deep incision down to the periosteum behind the ear parallel with, and half an inch from the insertion of the concha. The incision should be one inch long at least. It is generally followed by a marked relief, even if pus has not been drawn. The warm applications must be renewed. But if the symptoms unmistakably point to an accumulation of pus within the mastoid cells, no time must be lost in treating this dangerous complication as recommended in all works on aural diseases.

I have yet to say a few words regarding the *intermittent otitis*, which has not been described yet in the text-books, because they consider all otitides under the head of catarrhal inflammations. Since I first described the otitis intermittens[1], I have observed a great many cases of acute aural inflammations which belonged to this class, and were treated as intermittent otitis, so speedily cured that I have no hesitation in saying that a great number of acute otitides, particularly of those occurring in spring and fall, are caused by malarial influences. This cause cannot always, though it may be often traced. The reason that this form of otitis has hitherto escaped the notice of observers, is I think, that almost every acute otitis shows a pronounced remittent character; during the day the fever and pain subside; at night they increase in violence to abate again toward morning.

The following symptoms are characteristic:

1. Monatschrift f. Ohrenheilkunde No. 11, 1871, and Deutsche Klinik, No. 5, 1874.

The disease is ushered in with a more or less pronounced chill, attended by an uncomfortable sensation and roaring noise in the ear. The next day a violent angina and naso-pharyngeal catarrh make their appearance, but on the second day, or night, the patient has another chill, followed by increased roaring and by a severe pain, mostly in one ear. The earache lasts until morning. After a few hours' sleep the patient awakes, and is bathed in perspiration. During the day he feels tolerably well, only having an uncomfortable feeling in the ear, but being more annoyed by the symptoms of the pharyngitis. But the more these latter symptoms subside the more violent the noise and pain in the ear become. Again, they return in the evening, or at night, preceded by a chill, and in the third or fourth night pus is copiously discharged from the ear. Not till then the patient calls upon his physician, because he had been deceived about the nature of the disease by the daily respite from pain. The examination generally reveals the signs of the simple, so-called catarrhal otitis; sometime a perforation of the membrana tympani with a purulent discharge. Pressure upon the tragus, which in all other aural inflammations is also very tender during the day, is not painful during the intermissions, at least in the beginning of the disease; nor is there any fever.

The physician employs the remedies usually recommended as effective for catarrhal affections, or those I have mentioned above; nevertheless he will see the symptoms aggravated in the following night. If there is no otorrhœa, and the physician detects an accumulation of pus behind the membran. tymp., which he thinks causes the increased pain, he will find by experience, that the paracentesis of the membrane and the evacuation of the pus are of no benefit. Very soon the mastoid process is implicated, and the free intermissions become less marked when the mastoid cells are filled with pus.

No air bath, cold or warm applications, injections of morphine, nothing in short, can prevent the return of the fearful exacerbations at night. Even if the mastoid cells have been opened, and a free outlet for the pus has been established, the painful

symptoms will continue always to become exacerbated at a certain time. The Eustachian tube is in the most cases scarcely pervious to inflation, even if there is no naso-pharyngeal catarrh; the walls of the tube are relaxed. In all such cases we must ascertain whether the patient has chills at certain hours, and at regular intervals we must use the thermometer, inquire as to profuse perspirations, and examine the spleen, which very often is quite sensitive to pressure.

The therapy must consist in *large doses of quinine.* I generally prescribe,

℞. Quin. muriat, - - - 0.5 to 1.0 grammes.
Morph. muriat, - - 0.02
Rhei. pulv. - - - 0.06. M.

At noon the patient takes ½ powder, and one powder in the evening, about 1½ hours before the return of the chill and pain. The quick and decided effect of this treatment is often surprising.

The effect is less determined in neglected cases, because of complications then already created which require the local treatment mentioned above; I have found that in protracted cases of this intermittent inflammation the perforation of the mastoid process is often urgently indicated in order to establish a free outlet for the pus, which, under an improper treatment, accumulated in the mastoid cells. But the morbid process itself is effectually arrested by the administration of quinine.

Clinical Reports.

NOTES FROM PRIVATE PRACTICE.

Two Cases of Stricture of the Urethra.

As there is still a great difference of opinions among surgeons respecting the curability of organic stricture of long standing, I desire to record the favorable result obtained by gradual dilatation in an organic stricture of twenty years' dura-

tion. Abernethey and others advise to begin the exploration of a strictured urethra with fine bougies "corresponding to the stream;" while Dittel sees in the early use of larger bougies a safer method, because the fine instruments are too liable to make false passages.

Case I.—I. B., aged 43 years, a sailor, had gonorrhœa twenty-two years ago, and has been suffering from stricture of the urethra for twenty years. When he came under my care, in February, the stream of his urine was of the size of a knitting needle; the urine was turbid and alkaline; micturition frequent. He complained of pain in the sides, costiveness and general weakness. The stricture occupied the membranous portion of the urethra where a hard tumor could be felt through the perineum. I succeeded in passing a No. 1 French bougie through the stricture; but twice subsequently I failed with the same instrument, and on the third trial, when it seemed to pass through, I convinced myself it was pursuing a false passage. I therefore desisted from all further attempts until the damage could be repaired.

I then introduced No. 26 of a set of metallic sounds (the largest size which would be admitted by the external orifice of the urethra) as far as the stricture, and retained it there for twenty minutes. This being repeated eight days in succession, the lower part of the stricture was stretched to such an extent that on trying a small bougie it passed through without difficulty, and afterward the stricture dilated gradually, though slowly, so that at the end of three months the No. 26 could be admitted. By this time the urine had become clear and the patient had greatly improved in health. Three months later I could ascertain that the caliber of the urethra had not decreased, yet admitting the No. 26 as easily as before.

Some practitioners would, perhaps, have shortened the treatment of this case by internal urethrotomy. But if the patient can only occasionally be seen, I do not think it prudent to perform an operation which possibly might jeopardize life, to say nothing of the reputation of the physician.

Case II.—This case is remarkable in its anatomical features, since there were all the symptoms of stricture,

obstruction to the bougie alone excepted. Others might therefore not call it a stricture; but I treated the difficulty as such, and succeeded in relieving it. The brief history of the case is this: A young man of 33 called on me in June last, on account of several disorders, following an attack of gonorrhœa, which he had three years ago. His complaint was a steady diminution of the stream and a change in its direction, frequent micturition, turbidity of the urine, intercurrent pains in both sides, habitual costiveness, and a general depression of the system, which the patient attributed to the medicines he had been taking for nearly three years. From this history, I concluded he had stricture and introduced a metallic bougie, No. 26, but to my great surprise it passed along the urethral channel without meeting any obstruction. The external examination of the urethra, through the rectum, failed to detect any change in texture or sensibility. Under these circumstances, the only way of explaining the symptoms was to suppose that granulations, springing from some ulcerated patch in the urethra, and soft enough to give way to the catheter caused the diminution of the stream, and, as a consequence, the incomplete evacuation of the bladder. The only objection I could find to this supposition was, that there was no trace of blood on the instrument. I introduced, twice a week, a metallic bougie, No. 26, coated with an ointment containing tannic acid, and left it in situ from thirty to sixty minutes. The stream soon grew larger and continued so after each introduction of the instrument, so that, after six weeks, the patient was discharged completely cured. I should not be surprised if after some months the patient should return, complaining of the same disorder, because I think that this was the first stage of stricture, and that I must expect the second, namely, retraction of tissue. However, I learn from the patient now, two months after his discharge, that he is feeling quite well, and notices no diminution in the stream of urine.

Dr. H. Banga.

Chicago, 20th of September, 1877.

Reviews and Book Notices.

A Series of American Clinical Lectures. Edited by *E. C. Seguin, M. D.* New York: *G. P. Putnam's Sons.* 1876.

Vol. II. No. V. (whole No. 17), Diagnosis of those Diseases of the Eye, which can be Seen without the Ophthalmoscope. By Henry D. Noyes, M. D., Professor of Ophthalmology and Otology, etc.

No. VI. (18), The Modern Methods of Examining the Upper Air Passages. By George M. Lefferts, M. D., Clinical Professor of Laryngoscopy, etc.

No. VII. (19), On Tracheotomy and Laryngotomy. By H. B. Sands, M. D., Professor of Anatomy, etc.

No. VIII. (20), The Hypertrophied Prostate. By Robert F. Weir, M. D., Lecturer on Genito-Urinary Diseases, etc.

No. IX. (21), Points in the Surgery of Childhood. By J. H. Pooley, M. D., Professor of Surgery, etc.

No. X. (22), Spinal Irritation; Its Pathology and Treatment. By William A. Hammond, M. D., Professor of Diseases of the Mind and Nervous System, etc.

No. XI. (23), On the Treatment of Eczema. By R. W. Taylor, M. D., Physician to Charity Hospital, New York.

Vol. III. No. I. (25), Transfusion of Blood and its Practical Applications. By Thomas G. Morton, M.D., one of the Surgeons of the Pennsylvania Hospital, etc.

Clinical Lectures, delivered by men of recognized ability, are always attractive. They possess a charm of their own. Their very freedom from the abstract and abstruse reasoning of the didactic teacher, their application of principle to practice, of the methods of diagnosis to the case to be diagnosticated, of the remedy to the condition to be remedied, are attractive merits. The conversational tone of the writing, while it might detract from the dignity of a more studied

effort, is here not without its value. Nothing is more detestable than a slovenly-prepared clinical lecture. He who spreads before his auditors (or readers) a clumsily compounded abstract of the text-books he has chanced to consult upon the subject in hand, as well as he who laboriously enlarges upon a topic which has been worn threadbare by every tyro in medicine, is equally an offender with the ignorant or careless author.

All of the merits, and few, if any, of the faults described, distinguish this valuable series of essays; and the editor has fairly earned the honor of congratulation, not only on account of the practical results here displayed, but also on account of the brilliancy of the scheme itself. The lectures are, as a rule, characterized by originality, conciseness, accuracy and practical suggestions. Some of them are quite equal in point of classical and literary excellence to the productions of that prince of clinical exposition—the eloquent teacher of the Hotel-Dieu de Paris.

Dr. Noyes' Lecture, (No. V.), treats exclusively of the question of *diagnosis* of such ocular and orbital diseases as can be recognized without the aid of the opthalmoscope, and by the employment merely of oblique illumination through the medium of a convex lens of two-inch focal distance. This subject will thus commend itself especially to the general practitioner, whose attention to diseases of the eye too frequently terminates, when it is thought to be necessary to employ the ophthalmoscope. All lesions possible of recognition without this instrument, from imperfect accommodation to those of traumatic origin, are here concisely described with a view to their recognition.

Dr. Leffert's Lecture, (No. VI.), will prove chiefly useful to those who are unfamiliar with the use of the laryngoscope, since it points out clearly the chief causes of failure. The usual obstacles are enumerated as follows: a short frenum linguæ, an unmanageable tongue, irritability of the fauces, hypertrophy of the tonsils, elongation of the uvula, and an unfavorable position of the epiglottis. A wood-cut produces very distinctly the normal relation of all the parts represented in the laryngeal picture upon the mirror. The essentials for

examination are stated to be, two mirrors, one laryngoscopic, one rhinoscopic, a forehead reflector, (preferably provided with Kramer's band) good illumination, if possible by artificial reflected light, and one Türk's spatula.

Dr. Sands (Lecture, No. VII.), in the enumeration of the morbid conditions of the air passages which may require the artificial opening of the wind-pipe, mentions the various forms of laryngitis, as well as foreign bodies in the air passages, laryngeal or tracheal tumors, injuries of the larynx or trachea, stenosis of the larynx after wounds or ulcers, and spasm or paralysis of the laryngeal muscles. We find no allusion here to membranoid occlusions, which the author, without doubt, would class under the division of specific laryngitis, as in the greater number of instances these membranous formations result from syphilitic disease. The morbid conditions external to the air passages, which may call for the operation, are thus given: impaction of foreign bodies in the pharynx, or œsophagus; tumors overlying the superior aperture of the larynx; cervical tumors or abscesses pressing on the trachea; thoracic aneurisms pressing on the pneumogastric or recurrent laryngeal nerves, or other tumors having the same result; and lastly, operations in the mouth or pharynx, involving copious hemorrhage.

Dr. Weir's Lecture (No. VIII.), is a thoroughly careful and judicious exposition of the subject of prostatic hypertrophy, for the relief of the symptoms attending which, it is almost needless to say, diurnal catheterization is recommended. He advances beyond the teachings of the text-books, in pointing out the fact that it is muscular and glandular hyperplasia which induces the enlargement (myoadenoma), not, as has been taught, undue development of fibrous tissue. He gives a list of catheters found useful by himself in relieving the distension resulting from prostatic enlargement, but omits to mention two, either of which may prove effective when all others fail. One is the instrument made of cable wire, such as the dentists use. It is far more flexible than the vertebrated catheter, and should always be preferred to the latter in view of the danger which might result from the disconnection of its various links.

The other is the simple soft rubber instrument, open at one extremity and closed at the other, with foramina at the side. It can be insinuated where English and French instruments will fail to pass.

Dr. Pooley (Lecture No. IX.), has confined himself to a discussion of the method of operating in phimosis and hare-lip. His subject is treated in a judicious and practical manner, the lecturer evidently having enjoyed a fair experience in treating the deformities under discussion, but as the operations for relief of the latter are not, in any sense, exclusively performed in childhood, we are at a loss to perceive the fitness of the title of the lecture.

Dr. Pooley, however, while he traverses a well worn path, arouses a new interest at almost every step, by his ingenuity and candor. We have heretofore, in these pages, briefly noted his employment of black sutures after excision of the prepuce, in order to commend the proceedure as one of those little measures whose adoption often contributes to the elegance of the result.

Dr. Hammond (Lecture X.), understands by spinal irritation, that condition in which there is anæmia of the posterior columns of the spinal cord, or, as he terms it, "posterior spinal anæmia." An enumeration of the symptoms of a disease so exactly located would possess great interest in connection with this subject, but after brief reference to some of the former—the list including such widely divergent phenomena as hiccup, insanity, gastric acidity, asthma, visual disturbances, and incontinence of urine—the author disappoints us by stating that all have not been mentioned, since their detail would "take up more time than our lecture affords." The result is, that the reader of this essay does not gain a clear conception of the disease which the author is attempting to discuss, and, if the dim suspicion is awakened that there is room for doubt whether all these symptoms result from the pathological condition named, certainly only Dr. Hammond is to be blamed for it.

The treatment recommended is hygienic, onic, and the employment of remedies which increase the amount of blood in

the spinal column, strychnia, phosphorus, opium, picrotoxine.

We should, however, not advise the too enthusiastic student of these clinical lectures, to employ the remedies named in "salivation," "somnambulism," "pyrosis," and "pain in the testicles," until he has become thoroughly familiar with all the symptoms of "posterior spinal anæmia."

Dr. Taylor's Lecture on the Treatment of Eczema (No. XI.), is one of the most delightful clinical essays of the series. He describes well the injurious results of applying tarry and caustic preparations in the local treatment of the disease in its acute phase, and praises the bran baths, and the application of alkaline lotions, with hot or very warm water, which are, as a rule, so grateful to the patient and so often efficacious in a remedial point of view.

The value of Dr. Taylor's injunction against the use of the iodide of potassium in such cases—a remedy to which the general practitioner is too often ready to resort—is well illustrated by a case which was made the subject of a clinical essay by Dr. Duhring, in the Hospital of the University of Philadelphia, and published in the *Philadelphia Medical and Surgical Reporter*, of August 4, 1877—since Dr. Taylor's lecture was put in print. In it a bullous eruption, induced by the iodide of potassium, had occurred extensively as a result of the improper treatment of a small patch of infiltrated eczema.

Lack of space forbids further reference to the treatment recommended in chronic forms of the disease, and especially to the local and internal treatment of eczema infantile, the therapeutic rules laid down being so clear, concise, and practical, that they cannot fail to be appreciated by the busy practitioner who would otherwise have to consult the larger treatises.

We believe that this lecture will prove of greater value to the average reader than any other of the series. And this, not merely because of the skill with which the author has handled the subject, but by reason of the fact that where one medical man, in general practice, is summoned to open the larynx, to operate for hair-lip, or to perform transfusion, twenty are asked what to do for a baby with "scalled head."

Dr. Martin's Lecture (No. III., No. I.), contains the following list of disorders for which transfusion has been considered available: hæmorrhage, idiopathic anæmia, chlorosis, leukæmia and exhaustion, pulmonary consumption, cholera; uræmic, phorphorus and carbonic oxide intoxication (of each of the two first named, one case has occurred and terminated favorably), carcinoma, pyæmia, septicæmia and puerperal fever, variola, scarlet fever and diphtheria, tetanus and epilepsy, scurvy, asphyxia neonatorum, hydrophobia, insanity, and sunstroke.

Cuts are shown representing the apparatus of Howe, Aveling, and the author. The latter uses defibrinated blood, and his method is not peculiar to himself. He has occasionally injected into the radial artery toward the hand, after ligating above, but as a rule he considers the transfusion into a vein the better mode.

We conclude with a single extract: "I charge you to let no person die in an emergency, as from post-partum hæmorrhage, merely because you have not all the specified implements. A pocket case, a small syringe, and fresh blood, are all you will find necessary; and when great haste is required, I should not hesitate to inject the blood without defibrination. Only be reasonably careful of clot and air, and especially avoid throwing in the blood rapidly. It can hardly be thrown in too slowly." J. N. H.

Some General Ideas Concerning Medical Reform. By *David Hunt, M. D.* A. Williams & Co., Boston. 1876.

This is a little book that deserves more of a notice than we have space for in this journal. In this day of rapid advancement in every department of thought, such books are valuable to tell us where we are, and whither we are drifting. It is plain, however, that the author, like so many others at the present day, has completely mistaken science for medicine. America might well be proud to have great anatomists, physiologists and pathologists. But anatomists, physiologists and pathologists are not physicians, however much they may contribute to improve the art. We would like to see the prelimi-

nary course of study so modified as to embrace the widest possible scientific education. We think we could lay out a course suited to the physician from ——— we were about to say from the *ovum* to the maturest manhood. We are quite sure, however, that the medical course proper, extending as it does over three years only, should be in the highest degree practical. This was probably the idea in establishing what is known as the "Summer School." By the most extensive clinical instruction it was purposed to teach young men *how to take care of sick people.* Every attempt to make medicine a science is an attempt to inaugurate or perpetuate a sort of medical monasticism. J. I. T.

THE CURE OF HERNIA—By what the Author terms New Methods—By *George Heaton, M. D.* Boston: H. O. Houghton & Co. 1877.

This book contains 196 pages neatly bound in cloth. The contents are arranged and edited by J. Henry Davenport, M. D., of Harvard.

The author devotes twenty-six pages to a description of what hernia is, and the different kinds of hernia; and very concisely and clearly describes the various forms of rupture, giving statistical reports from various sources showing the frequency of hernia in the human family.

The operations of Gerdy-Wutzer and Wood are not referred to, and the plan of plugging the hernial opening condemned, as causing too severe inflammatory action and the subsequent throwing out of the plug as a foreign body.

Then comes the author's method of cure, which is termed the "Liquid Method," or *the method of tendinous irritation.*

The operation is performed with a syringe somewhat resembling the ordinary subcutaneous syringe, which is loaded with the modicum of irritating fluid. The patient is placed in the recumbent position, and the contents of the hernia returned within the abdomen. The hernial sac also should be returned if possible.

Armed with the instrument charged and prepared, the

operator introduces its beak into the inguinal canal. Supposing the case in question to be an inguinal hernia, care is taken not to injure the spermatic cord.

About ten minims of the liquid—which is made of the fluid extract of quercus alba, and of the solid alcoholic extract of the same material—is injected into the canal. Morphia is sometimes added to the solution to relieve pain.

A cut and description of the instruments used are shown in the book. After the operation a bandage or truss is worn, to retain the intestines or contents of the canal within the abdomen until a cure is completed.

The radical cure of the rupture is accomplished, as claimed by the author, by producing a low grade of inflammation in the fibrous or fibroid tissue causing lymph to be thrown out into the canal, which being thus subcutaneously produced, has a strong plastic or organizing tendency. Also that its production is largely interstitial, thickening the fascia and tendons, and thus closing the hernial or inguinal canal.

The theory is a plausible one, and the operation a comparatively simple one. It is a somewhat new method of trying to accomplish a result long since arrived at, but too seldom attained.

The author speaks confidently of the result, and the cures by this plan of treatment in his own hands, and we confess that his statements have evidence of candor as well as facts.

Get the book; it is well worth reading. And the operations for the cure of rupture are well worth trying. H. V.

AIKEN AS A HEALTH RESORT. By *Dr. W. C. Geddings, M. D.*

Dr. Geddings has been for several years a resident of Aiken and a careful student of the climate of this section of the Southern States. In this pamphlet of about 30 pages he has collected a large number of valuable facts, bearing upon the relation of climate to disease, and especially the climate of the sand hills of South California to diseases of the respiratory organs. His conclusions are that benefit may be reasonably expected in that climate in most chronic diseases of an asthenic type. He enumerates

1st. Bronchitis. 2d. Consumption, (except in last stages, and in acute tuberculosis, laryngeal phthisis). 3d. Malarial Disease. 4th. Dyspepsia. 5th. Anæmia. 6th. Diseases of Females. 7th. Diseases resulting from over work, confinement, etc. 8th. Convalescence from Pneumonia and Pleuritis. 9th. Convalescence from Typhoid Fevers, and other Exhausting Diseases. 10th. Syphilis. 11th. Children convalescing from Scarlatina, Measles, Whooping-cough, etc.

Aiken is contra-indicated in the following diseases.

1st. Laryngeal Consumption. 2d. Laryngitis. 3d. Bronchitis when attended with very tight cough, sparse secretion. 4th. Bright's Disease. 5th. Eye Diseases. 6th. Diseases of the Nervous System.

The reasons of these conclusions are indicated, but cannot be given for the want of space.

THE TONIC TREATMENT OF SYPHILIS. By *E. L. Keyes*, A. M., M. D., adjunct professor of surgery, etc., New York. *D. Appleton & Co.*, 1877, pp. 83.

The author of this interesting little monograph, published an article on the subject of blood counting with the hématimètre, in the *American Journal of the Medical Sciences* for January, 1876, which speedily attracted attention to his studies and secured for them a favorable recognition. The present treatise seems to have been largely the result of the investigations reported in the paper named above, the attempt being here made to establish upon a satisfactory basis a rational method of treating syphilis. We have, heretofore, in the digest department of this JOURNAL given a brief abstract of the conclusions reached by the author after repeated and careful experiments in counting the blood corpuscles of syphilitic patients—not only those who were untreated but also those who were brought under the influence of various medicaments. A fair illustration of the method of treatment preferably adopted by Dr. Keyes, as a result of experiments, may be found in his use of the centigramme granules of the protiodide of mercury, prepared by Messrs. Garnier & Lamoureux, of Paris.

For three days one granule is taken immediately after each meal, and on the fourth day one granule is added to the mid-day dose—this addition being continued for three days also. On the fourth day again, another granule is added (the patient, for example, taking two in the morning, one at noon, and two at night), and this course also is continued for three days. Such gradual addition is progressively conducted until there is positive evidence of intestinal irritation, as for example, colicky pain, diarrhœa, or symptoms of incipient salivation, when the patient's "*full dose*" has been ascertained. This is to be distinguished from his "*tonic dose*," which latter is held to be one-half of the former amount, and one which should be unceasingly administered, day after day and month after month, waiting for new symptoms. Upon the supervention of the latter, recurrence should be had to the "full dose," for their prompt relief.

Such is a brief outline of the scheme of what Dr. Keyes calls the "tonic treatment of syphilis." But the title has already given rise to a misapprehension on the part of the reviewers of the monograph, which has elicited a rejoinder from the author. In it[1] he takes occasion to utterly disclaim any responsibility for the argument that because mercury in small doses is tonic and when thus administered is capable of curing syphilis, therefore the drug is curative by virtue of its tonic action. On the contrary, he claims that mercury in short courses induces the disappearance of syphilitic symptoms, but produces debilitating effects if continued in full specific doses. Long continued in small doses, it controls the disease and is physiologically tonic. Consequently the specific action of mercury may be so managed as to constitute the remedy a tonic medicament.

This much for the distinctive features of this little book, which are certainly full of interest, suggestive and of great practical moment. It is true that the general system of procedure recommended, is by no means novel or untried, having been largely employed by successful practitioners before the author's experiments were instituted. He is, however, fully

1. Louisville Medical News, No. 10, April 28th, 1877, p. 199.

entitled to the credit of presenting it anew in a lucid and forcible manner, to the notice of the general profession, and, in particular, for his successful refutation of the somewhat hastily reached conclusions of Wilbouchewitch, Grassi and Ricord.

Apart from these distinctive peculiarities of the essay, a chapter is added upon the local treatment of especial lesions of syphilis, which are considered in a manner quite satisfactory, when the small space allotted to the subject is considered, neither the title nor scope of the volume, however, really demanding any such addition.

We are pleased to note that the claim of the hot springs of Arkansas, with reference to the eradication of syphilis, is here justly characterized as "utterly unfounded in fact." Other denunciation might have been employed for the purpose of warning syphilitic patients of the shameless impositions of the charlatans who swarm in the vicinity of that resort. We must admit to some surprise, in reading, on page 61, a concession as to even the "adjuvant" value of guaiac and sarsaparilla in the treatment of the disease; and cannot but deprecate the use of such language as the following in connection with any scientific subject: "No means in the physician's hands place him so near the Deity as the iodide of potassium." Such words suggest, in a most uncomfortable manner, the extravagance of statement which usually accompanies the *suggestio falsi* or the *suppresio veri.*

The typographical appearance of the work is unexceptionable; and we believe that, as a whole, it will not fail to add to the established reputation of the adjunct professor of surgery in Bellevue Hospital Medical College. J. N. H.

Correspondence.

Boston, September 26, 1877.

Eds. Medical Journal and Examiner:—Boston is a place of great pretensions, and one naturally comes here with great expectations. No one need be disappointed either, unless he entertains unreasonably extravagant notions of the "Hub" and its institutions. Her medical men and medical institutions are inferior to none in the country. Her institutions, in all departments, show the perfection that comes with age, and capable management. Nowhere in the country, perhaps, is there so large a proportion of physicians who are gentlemen of superior education and literary and scientific culture as here; among the young men too who are preparing to enter the profession, a very large proportion have received a thorough academic training; and the mental discipline thus obtained will tell in their whole career. Unlike other cities of this country, Boston is not overstocked with medical colleges, the Harvard Medical School being the only regular one, and besides this is the medical department of Boston University, a small institution which deals out only small pills.

Now I cannot continue to say only *good* things of this city, for in spite of the numbers and culture and ability of the regular profession, the place certainly takes the palm for quacks, charlatans, humbugs and "isms" of various kinds. I counted in one of the daily papers the other morning, fifteen quack doctors' advertisements, occupying nearly the whole of one side of the paper; and in addition to these, thirty cards of clairvoyants, magnetic doctors, etc. Homeopathy, too, has its adherents, as has the "faith cure," which might perhaps be appropriately classed with the homeopathic system, as faith is the essential in both. While dwelling on the "faith cure," I will mention a case I saw at "The Consumptive's Home,"—

an institution which claims to receive its support and healing through "faith,"—of a paraplegic woman who has been "trusting" for the healing power these seven years, and has refused all medication or other curative means. Aphonia has existed in this case for twenty years, and even this feature of her affliction has received no benefit from this prodigious exercise of faith. While at this institution, I asked for the prevailing treatment of the consumptives, and the reply was, that some were treated homeopathically and others took no medicine or special nutrition, but trusted to the prayers of faith. "And what percentage of your patients are discharged cured," I asked. "Oh, very few, the cases most all die," was the reply, "whether they take medicine or trust wholly to supernatural power."

The city hospital is the great municipal medical charity of this city. It is admirably located for healthfulness and convenience; the grounds, about seven acres, are large, and near the salt water; the buildings are ample and mainly of the most approved model. It was one of the first erected on the pavilion plan; the first pavilions erected are somewhat defective in ventilation, but the last put up are perfect in this regard, having ridge ventilation.

The superiority of this kind of hospital ward, and this system of ventilation are so evident, that it is a wonder to me, as it is to the medical gentlemen here who have such a good chance for comparison, that at this day any other kind should be erected, especially in cities like Chicago where space is so abundant and cheap. I was pleased with the care exercised by the internes of this hospital in diagnosis, and the simplicity and judiciousness of the treatment. The expectant treatment, and the judicious, cautious use of medicines, advocated by the late Dr. Jackson, seem to have taken root here. The tub bath is largely used in the treatment of typhoid fever, and with satisfactory results. The patient is placed in an ordinary bath tub, with the water at a temperature of 80 or 90 degrees (F.), and gradually cooled by the addition of cold water. Of thirty-two cases reported treated by this method, only one died. A case I saw in one of the wards was treated during the stage of exhaustion by hypordermic injections of brandy, and with some

apparent benefit. Salicylic acid is used for rheumatism, in large doses frequently repeated for a day or two, and with good results. Jaborandi has been on trial here, but has not sustained the reputation given it by some.

On the surgical side the material for clinical study is abundant. I notice that in fractures of the leg, especially compound, the good old fracture box is still used, and for the thigh, extension by weight and pulley, and short splints are used, and the results are most satisfactory. I think that here less weight is used than is customary by some surgeons I know, and less than in some other hospitals I have visited.

The antiseptic method has been tested in this institution, but now rather fallen into disuse, as the results were not, in the hands of the surgeons here, those claimed for it by Lister and others. Dr. Blake reports 19 cases of empyema treated by permanent openings of the thoracic cavity; fifteen of the number were cured, or greatly benefited by this method of treatment. I was shown in the children's ward a case of syphilis in a little girl 10 years old; she had a large chancre on one of the labia, and inflammation of the inguinal glands. The disease in this case, too, was communicated in the ordinary way.

In my visits to the medical institutions I have not slighted the Charitable Eye and Ear Infirmary. It is, I believe, a kind of mother to similar institutions of the kind throughout the country; and yet it shows no signs of decrepitude or failing usefulness. It is admirably conducted, and furnishes an exhaustless amount of material for clinical instruction in eye and ear diseases; the instructors are among the most eminent in the country in their specialty.

The abuse of medical charities by those able to pay for medical attendance is receiving the attention of the profession here, as it is in nearly all the large cities in this country and Europe.

At the eye and ear infirmary I observed a large proportion of the patients were well-dressed and well-fed; and Dr. Jeffries made the remark that "these people often come in a hurry with a story of a baby at home, etc., when really a

carriage was waiting to take them to an excursion boat or train, or a-shopping." How to protect charitable institutions from such shameful lying and deception, is a matter of serious import.

My letter is getting long, and I would stop, were I not so anxious to give your readers a brief abstract of a case I saw operated upon by Dr. J. C. Warren, in the Mass. General Hospital, to-day.

The patient was a young woman aged 21. At the age of 16, she met with the loss of her entire scalp, including the eyebrows and a part of the skin of the right cheek. While at work in a factory, her hair was caught by a belt and shaft and the scalp torn away in an instant. Hemorrhage was slight; the scalp was picked up, replaced and stitched on, but it dried up and was clipped away entirely. She was removed at once after the injury to the Massachusetts General Hospital, and remained under Dr. Warren's care for eight weeks. Several attempts at skin-grafting were made, but unsuccessfully. She then returned to her home at Stoneham, Mass., and came under the care of Dr. W. Symington Brown. Dr. B. used a weak solution of carbolic acid locally at first, and afterwards a weak solution of bromine in sol. of bromide of potass. In about 8 months from the receipt of the injury, Dr. B. commenced skin-grafting once a week, and continued it for three years. During that time 2,600 pieces of skin were applied; the grafts being furnished by 180 different persons; mostly young people and children; one girl furnishing 103 grafts.

Since the accident she has had three attacks of pyemia; the last one accompanied by the appearance of petechial spots over the whole body, and partial suppression of urine. The entire scalp is now healed over, except a small red smooth spot above the left eye. This is a portion of the conjunctiva which was torn from its normal position and reflected upon the eyebrow, and which closely resembles an ordinary granulating wound; but after faithful trial the skin grafts would not take here as on the rest of the scalp, and to-day Dr. Warren performed an operation with a view to replacing the conjunctiva by dissecting it from its attachment to the eyebrow, and stitching the

free border to the eyelid. The raw surface was then covered with a piece of skin as large as a half-dollar taken from the patient's thigh. Large skin-grafts have succeeded in a few cases reported; but in this case nothing was claimed more than an experiment. If the large graft failed, the surface could afterwards be treated with the smaller ones, as was done with the rest of the scalp. The eyes were not injured further than the laceration of the lids in consequence of which the left eye is partially closed. The vision is so good that she does sewing and takes lessons in music. After the scalp began to heal, the downy hair on the neck took on an extraordinary growth, and this hair is now fourteen inches long and curly. I propose to follow up this case and learn, if possible, the result of Dr. Warren's operation to-day, and may give your readers the benefit of it. The case is one of great interest, in showing the value of skin-grafting when followed up with the commendable perseverance exhibited by the gentlemen who had charge of this case. R. M. LACKEY.

"COLOCYNTH AND COLOCYNTHIAN REFLECTIONS."

SHOPIERE, Wis., October, 1877.

In a very learned article, with the above heading, Dr. Tucker, in your last issue, gives us the result of his reflections, which is in his mind, doubtless, an original discovery, to wit: "That colocynth will allay the pain caused by excessive peristaltic action, better than any drug in use, not excepting opium, providing it be used in the proper dose."

Now if Dr. Tucker will take up "Bæhr's Therapeutics," (homeopathic) and turn to page 473, he will find these words: "The treatment of such a colic is very satisfactory. We possess a remedy against it which is almost always effective, whereas every other method of treatment seems without any avail. We mean *Colocynth.*" And by turning to the Materia Medica of Hemple, Hering, Burt, and other Homeopathic writers, he will find that colocynth has held a place high in their estimation in this class of disorders, including diarrhœa and dysentery.

Thus we often find that what at first seems to us to be an original discovery, ultimately proves to be but a "bequest from antiquity." And the Doctor will, upon investigation, find that the hydragogue action of colocynth has not been the limit of its usefulness. C. L. Gish, M. D.

WAS A QUARTER OF A GRAIN TOO LARGE A DOSE?

In the August (1877) number of the Chicago Medical Journal and Examiner, Dr. Ingals published a paper, entitled: "Danger from Hypodermic Injection," in which the doctor says: "I was called in the night to see a woman, who, from continuous watching with sick children, had become debilitated, and, as a result, suffered at times from severe pains of a neuralgic character. * * * I dissolved one-fourth of a grain of morphia in pure water, and administered it under the integuments on the outer side of the arm.

The doctor then states, "in a few seconds the breathing becomes stertorous; the pulse failed; the lips and countenance become livid, etc., etc." The woman, he tells us, was, however, resuscitated.

The paper also contained reports of cases Nos. 1, 2 and 3, by E. Wenger, M. D. Cases 1 and 3 died; but the doctor did not state the dose administered in either case. Now this article may have one of two effects upon the profession; first, it may deter physicians from using the hypodermic syringe in cases where it would be the means of saving life; and, secondly, it may induce others to use morphia hypodermically in doses large enough to destroy life. I have used morphia hypodermically for the last ten years, and have not had a single bad result, other than an occasional inflammation at the point of introduction. My rule has been to always commence with a dose one-third the amount I would have given internally, and never without atropia.

Prof. R. Bartholow, in his excellent work on Hypodermic Medication, says, on page 41: "The dose of morphia for hypodermic injections varies from $\frac{1}{8}$ to $\frac{1}{2}$ of a grain. In

commencing it should not exceed *one-third* of that ordinarily administered internally. It is prudent in all cases to test the physiological capabilities by a moderate dose before resorting to the maximum amount. Women are, as a rule, more easily affected than men; $\frac{1}{12}$ of a grain is a sufficient dose for many of the conditions requiring an injection. Maximum doses may be administered with safety if combined with atropia." And on page 102, "atropia in small doses—$\frac{1}{60}$ of a grain—increases the hypnotic power of morphia. The pain-relieving power of morphia is increased by atropia. When toxic doses are used, the narcotism of morphia is overcome by atropia, and vice versa." Prof. H. C. Wood, of Philadelphia, in his work on Materia Medica, page 218, says: "I have seen very alarming results from the injection of one-sixth of a grain, and one-half a grain has produced death. In females, unless very robust, the maximum dose should be $\frac{1}{8}$ of a grain; in men one-sixth to one-quarter."

With the evidence given, and the effects of one-fourth of a grain upon the doctor's patient, the reader will be able to answer the question that heads this paper.

Du Quoin, Ill. JOHN MCLEAN.

For the information of the reader who desires to answer the foregoing questions, I may state that, in the case which I reported, the dose was not large enough to relieve the pain for any considerable time, and it was not sufficient to cause sleep.

The writer fears that the report will have the effect, either to encourage the use of the medicine in excessive doses, or to deter physicians from administering it by the hypodermic method when it may be needed.

Certainly the unfortunate result from one-fourth of a grain cannot induce physicians to give larger quantities; and as to the second criticism—if the report induces greater caution in the administration of remedies, it will have accomplished the end for which it was intended.

Regarding the usual dose of morphia, and the dangers from hypodermic injections, I will have something to say in a future number. E. FLETCHER INGALS.

Summary.

I. Gynaecology.

Influence of Alcohol upon the Quality of the Nurse's Milk.—Verney. (*Jour. de Méd. et de Chir. prat.* Sept., 1877, p. 417.)—The author, in discussing the influence of alimentation upon the quantity and quality of milk, gives the details of two cases which indicate very clearly that the excessive use of wine by the nurse is dangerous for the child at her breast.

In the first case, observed by Charpentier, a three-weeks-old infant, whose nurse seemed to be in excellent condition, after thriving up to a certain date, began to be agitated and enervated upon each occasion when it was put to the breast; it ceased to sleep, had a reddened aspect and lost that contented expression of the child which is properly fed. And yet the nurse had an abundance of milk, very rich in globules. After several days, the child being then five weeks old, it exhibited a copious rash upon the face, the neck and portions of the trunk; the agitation which followed each application to the breast persisted and a real convulsive attack followed, which could not be explained by any of the causes usually operative in such cases. After an exceedingly careful investigation, it was finally discovered that the nurse, finding the large and vigorous infant capable of exhausting her supply of milk, which had already been furnished for nine months, had, in order to increase the quantity, drunk four bottles of wine daily. This amount she had tolerated so well, as not to excite the suspicions of her mistress. Charpentier concluding, hence, that the child was suffering from alcoholic intoxication, had the nurse placed under surveillance and limited daily to a half-bottle of wine, a bottle of beer and a litre or two of barley-water, with a nutritious diet. In a few days, the infant

completely recovered its health, the agitation and convulsions ceased and the rash disappeared.

Verney cites a similar case where convulsions of the infant resulted from the alcoholic habits of the nurse, who drank from six to eight glasses of wine daily, and one during the night. The convulsions resisted bromide of potassium, musk, baths, calomel and belladonna, and yielded only when the nurse was restricted in the quantity of wine imbibed.

Excessive Cauterization of the Cervix Uteri.—J. Wallace. (*British Medical Journal*, 1877, Oct. 6.)—In our days the application of caustics to "an ulcer of the womb" has become such a routine practice that the following observations of Dr. W. may well merit our attention: "What are the immediate pathological results of weekly or bi-weekly applications of the nitrate of silver, which is the agent in most favor with practitioners, to the os tincæ? Inflammation and ulceration, lit up again and again by each application, followed in some instances by atrophy, and in others by hypertrophy of the cervix, with hard, painful cicatrices, and more or less contraction of the tissues and closure of the os, or even complete obliteration; endocervicitis and endometritis, the mucous lining of the cervical canal being more or less destroyed, and an ulcerated irregular surface remaining instead. Secondary functional derangements of the uterus follow, manifested first by dysmenorrhœa of a metrorrhagic character; and as the obstruction increases, regurgitation of the menstrual fluid takes place through the fallopian tubes, setting up ovarian, perimetritic, and general pelvic inflammations, with all their subsequent miseries.

The portio vaginalis uteri in some cases is so destroyed by caustics, that a hard, depressed cicatrix alone remains of it, and this is generally painful to the touch; the os is small, but not sufficiently so to account for the severe dysmenorrhœa. In such cases, the mucous membrane of the cervical canal is disorganized, and covered with uneven granulations, which bleed on the most gentle touch of the sound, and are so

actually sensitive, that I have frequently found it necessary to give chloroform before it was possible to examine the condition of the uterus. In a case under my care lately, the canal was tortuous from these excessive granulations; yet, on passing the speculum, the mucous membrane of the cervix seemed free from all inflammatory irritation, and it was only by a minute examination of the canal of the cervix that it was seen to be denuded of healthy membrane, while a careful digital examination revealed to the touch irregularities marking the different cicatrices. Sexual intercourse could not be tolerated; uterine pain was ever present; and although she had been cauterized externally and internally by various practitioners during a period of several years, no relief was obtained. The cicatrices were clearly seen with the aid of a duck-bill speculum. This uterus has never been impregnated, yet it measured fully two and a half inches, although its vaginal portion had been destroyed to more than half its extent. Relatively, it was enlarged from menstrual obstruction. Free division of the cervix cured this case.

Painful cicatrices, atresia uteri, and loss of sexual desire are mentioned as the chief evil consequences of excessive cauterization. In conclusion, W. says: "Repeated cauterisation is not necessary to produce healing, for the severe ulceration produced by potassa fusa on the lips of the uterus will heal in from four to six weeks without any subsequent cauterization whatever. It is only necessary to direct the patient to use the vaginal douche daily, either warm water, carbolized water, sulpho-carbolate of zinc, or whatever astringent in solution that may be deemed suitable. The occasional passage of the sound during the healing process will obviate any tendency to atresia."

The treatment may be summarized thus: 1. "For painful cicatrices, divide the cervix freely; if that fail, remove them by excision. 2. For recent atresia, use rapid dilatation; for atresia of old standing, free division with the scissors and uterotome; simple medicated dressing afterwards, if there be endometritis. 3. The sound should be passed a week before each menstrual period for three or four months, to prevent reclosure."

The Absorption of certain Medicaments by the Placenta and their Elimination by the Urine of New-born Children.—Porack. (*Journal de Thérapeut.*, Sept. 25, 1877.) The substance first employed by the author was the iodide of potassium, because of the readiness with which it may be recognized in the urine. He administered the potassic salt a few moments or hours before delivery, and examined several times consecutively the urine of the child in order to establish its elimination.

The following conclusions were obtained from his first experiments:

1. In doses of twenty-five centigrammes, the iodide of potassium constantly passes into the urine of the new-born child, more promptly when the dosage is increased.

2. More than half an hour is requisite for the drug to traverse the placenta; after an interval of forty minutes, the characteristic reaction can always be detected in the urine of the new-born child.

3. When the urine is collected immediately after birth, and the reaction is compared with that obtained in urine collected some hours after, the first reaction is always the more feeble. This reaction is never obtained in the urine of the still-born child. The eliminating activity is therefore developed only after birth. Before delivery the placenta is an organ of absorption and elimination for medicaments temporarily penetrating the fœtal organism.

4. When twenty-five centigrammes of the iodide of potassium are given to a woman in labor, the quantity absorbed by the placenta is small, and its elimination by the urine of the new-born child rapid.

5. When fifty centigrammes (and particularly one gramme) are administered to a woman, elimination by the kidneys of the child is always much more retarded than by those of the mother. While it is generally true that the total quantity of the iodide is eliminated by the mother in thirty-six hours, it is not rare to find the elimination by the child incomplete by the fourth day. In two cases it was not completed by the fifth and sixth days.

The importance of the slow elimination of the medicament by the child after treatment of the mother in labor, or of the nurse, lies in the fact that, if the elimination by the former is less rapid, the accumulation is greater, and thus the child more speedily presents the phenomena of intoxication.

Relations of Pregnancy to Surgical Affections (*Centralbl. f. Chirurg.*, 1877, No. 26; from *Bull. de la Soc. de Chirurgie*).—Verneuil, after alluding to the vast contributions made to surgical science within the last few years, remarks upon the necessity of having certain doubtful points cleared up, among others that concerning the reciprocal influence of pregnancy and surgical affections. To the solution of the question Verneuil contributes full notes of nine observations, which cannot be quoted for want of space. The conclusions which he draws are formulated as follows: Pregnancy and surgical affections (traumatic or of other kinds) may occur at the same time without in any way influencing each other. On the other hand, surgical affections may give rise to death of the fœtus, or miscarriage. Pregnancy, moreover, although in itself pursuing a normal course, may give rise to surgical affections (as for instance the occurrence of phlegmonous dacrocystitis), modify the course of others unfavorably, and give a peculiar unhealthy look to wounds of all kinds. In addition, concludes Verneuil, the unfavorable course of local affections during pregnancy may react upon the latter in the same manner. This unfavorable condition of local affections is so apt to change for the better after delivery, that Verneuil thinks the question may sometimes arise whether the production of premature labor might not be desirable.

Etiology of Fibroid Tumor of the Uterus.—F. Englemann, (*Centralbl. f. Chirurgie*, No. 27, 1877 from *Zeitschr. f. Geburtsh. und Gynäkologie*, Bd. i. Hft. i. p. 130) notes three hundred and sixty-two cases of uterine fibroid, of which sixty-five have come under his own notice, and the remainder under that of his father, and compares them with the observations of other writers. Married women, according to E.'s statistics,

are more frequently the subjects of this affection than the unmarried, 5.1 to 1. (According to Winckel the proportion is 9 to 7.3.) Both observers find the affection most frequent between the ages of forty and fifty. In nearly one-half the cases, the earliest symptoms appeared between the thirtieth and fortieth years. Among the married women 26 per cent. were sterile. Among the married women who had borne one or more times before the appearance of the symptoms, eleven never conceived afterwards, seven underwent one or more abortions, and twelve bore living children.

By taking advantage of especial opportunities, E. found among his sixty-five cases, in thirty-two no positive data; in the remaining thirty-three, he thought himself justified in twenty-six cases in attaching importance to the assertions of the patients relative to the origin of the disease. Together with abortion, inflammation of the abdominal region (six), and difficult labor (three), typhus, strain, fall, catching cold, dancing, climbing, agitation of the mind, and "diseases" were believed to be causes of the fibroid development. E. found the baths of Kreutznach effectual in removing the growth in a number of instances.

II. Surgery.

A Fenestrated Bandage for the Leg, After Pirogoff's Amputation.—Prof. Dittel. (*Wiener Med. Wochenschrift*, 1877, No. 16.)—The piece of the os calcis, which after Pirogoff's amputation is to unite with the lower end of the tibia, has a great tendency to slide down, and it taxes the surgeon's attendance a good deal to prevent such displacement. Most surgeons think this displacement is caused by the tractions of the tendo Achillis. Dittel, however, is of the opinion that it is simply caused by the weight of the bone; as the patient usually is lying on his back, the os calcis is pulled downward by its own weight. D. thinks this displacement can be obviated by the following dressing: the bones being well adjusted and the edges of the wound being united by catgut sutures, the proper position of the os calcis is temporarily

ecured by a broad strip of adhesive plaster, which, applied to the calf of the leg, is carried down and over the stump to the anterior aspect of the leg, to terminate at the crista tibiæ. The permanent bandage is then made with several strips of a plaster-of-Paris roller, which follows exactly the course of the adhesive plaster. These longitudinal strips are finally held in place by circular turns, some made a few inches above the ankle and some at the crista tibiæ. When this bandage has become dry and hard, the patient can assume any position without fear of disturbing his wound. The bandage must be removed if it becomes too loose or too tight, but in some cases the author had no occasion to meddle with it until the wound was firmly healed.

Hydated Tumor of the Kidney successfully treated by Aspiration.—Bradbury. (*British Med. Journal*, 1877, Oct. 6.) A boy, aged 8, was admitted into the hospital on July 5th, 1876. His only complaint was of an enlarged abdomen. A large tense elastic swelling occupied almost the whole of the left half of the abdomen, which was absolutely dull on percussion. Superiorly the percussion-dullness extended to within one inch and a half of the nipple in the nipple-line, and tracing it to the right, it became separated from the liver-dulness (right lobe) by a band of well-marked resonance. It then passed down, about one inch and a half to two inches to the right of the mesial line and lost itself below in the dullness of the (full) bladder. On tracing it to the left, the dullness reached as high as the left rib in the axillary line, but at this level it did not quite extend to the spine. The whole of the left hypochondrium was filled with the tumor, and there was complete dullness down to Poupart's ligament. The percussion was tympanitic over the rest of the abdomen. At the upper part of the tumor the "repercussion thrill" could be obtained. The heart's apex beat immediately beneath the nipple, just under the fourth rib; heart and lung sounds, urine and liver were normal.

On July 6th, the needle of an aspirator was introduced into the tumor, and forty-four ounces of hydatid fluid were drawn

off. No hooklets were found in it. After the operation the boy vomited several times, had slight fever, and an eruption of urticaria; but no tenderness of the abdomen. The urine was found to contain albumen, due to the presence of pus. July 15th, the abdomen was enlarging again. When the boy was made to sit up in bed he complained of pain in the loins, and four of the lumbar spines were found to be prominent, and the skin over them reddened. They were very painful on pressure. The tumor was aspirated again, and thirty-one and a half ounces of a greenish opalescent fluid were withdrawn, which, in the latter stage of the operation, was flaky and apparently purulent. After standing, the fluid deposited two ounces of pus. Under the microscope, pus-cells and the heads of numerous echinococci armed with hooklets were detected. The boy vomited again several times after the operation, but no urticaria followed the second puncture. On July 25th and 26th small cysts with hooklets were found in the urinary sediment. From this time the patient became gradually better. In November he was discharged from the hospital and kept under observation for some months. When last seen, he was quite well, the abdomen being perfectly normal and the urine free from pus and albumen.

Epithelial Cancer Treated by Diluted Solution of Soda. —Prof. Busch.—(*Allgemeine Wiener Mediz. Zeitung*). The commencement of the epithelial cancer of the face is in many cases a simple proliferation of the epithelial cells of the external layers. Under certain circumstances the pressure of the external horny layer will cause atrophy of the papillæ underneath. In other cases, particularly in old age and in cases of constant irritation (chimney-sweeps), no epidermis is formed; the rete mucosum is exposed, and we have an *ulcus rodens*. If this horn-like layer of epidermal cells which obstructs the road for the succeeding cell formations is removed in a gentle manner, we can prevent the further growth of the cancers. This can be done by washing off the epidermoidal masses with a diluted solution of soda. Therefore, in the first stages of the facial and labial cancers, a cure can be accomplished by alkaline lotions.

This treatment is also sometimes successful in cancers that have existed for some time; and after the excision of a cancer a relapse can frequently be prevented by washing the scar with alkaline solutions.

Paget had observed that cancer may follow an excessive accumulation of the epithelial cells on the surface of the mamma.

Langenbeck also observed that he had seen very favorable results from the application of Emser thermal waters to cancerous ulcerations.

On the Regenerative Properties of the Periosteum and its Practical Application.—Von Langenbeck. (*Centralblatt fur Chirurgie* No. 22.)—When the periosteum of a bone has been removed, to a considerable extent it will be replaced by new periosteum, without necrosis of the bone occurring. If this new periosteum is deprived of its bone, the bone will also be replaced. This has been proven by experiments of Bernhard Heine.

Experience teaches Langenbeck that this re-produced periosteum possesses great vitality; and that for plastic operations the integument, that has become adherent to the bone, when removed with its periosteum, is of great value.

The author relates the history of two cases in which, through accident, the skulls were injured so that large openings were left in the cranial cavities. In these cases, L. used the integuments of the scars, with its periosteum, to cover and close the openings, and obtained the best results. He also related the case of a person who had lost a portion of the hard palate through syphilitic ulcerations. By using the tissue of the scars left, he succeeded in a partial restoration of the bone, while he had failed by using portions of the regular muco-periosteal lining or integument from unaffected portions of the mouth. Gangrene of these cicatricial flaps only occurred in anaemic individuals that should have had a previous tonic treatment.

III. Practical Medicine.

Treatment of Neuralgia by Hypodermic Injections of Nitrate of Silver.—Le Dentu. (*La France Médic*, 1877.)—The author has recently reported to the Society of Clinical Medicine several cases treated successfully by the method first suggested by a M. Luton.

A young woman suffered for four months from a neuralgia of the radial nerve which had been treated in all possible ways. In view of this want of success, Le Dentu decided to inject subcutaneously in the cellulo-fatty tissue found in the middle third of the external face of the arm, seven drops of a solution of nitrate of silver (1 to 4). The result was that an intense pain succeeded immediately the pain of the neuralgia, the latter not once recurring after the moment in which the injection was made. On that and the succeeding days a very painful swelling invaded the arm and the upper part of the fore-arm with an œdematous and subsequently phlegmonous tumefaction at the site of the puncture. After nine or ten days an abundant sero-pus flowed from the latter, but the suppuration gradually diminished and the cure was finally complete. Two months afterward it was ascertained that the relief was absolute.

Having had since then no opportunity to make further trial in obstinate neuralgias of Luton's method, the author concluded to employ it in painful affections of another kind. A man who had been castrated on the right side and had been relieved by the operation, was tuberculous and suffered from frequent hæmaturia, violent pain in the glans penis and in the lower part of the belly and lumbar region, the permanent pain being aggravated during and immediately after micturition, but never entirely ceasing. The lumbar and testicular pain disappeared under the influence of punctate cauterizations, but the hypogastric neuralgia persisted. Le Dentu then made a subcutaneous injection into the hypogastric region, of four drops of a solution of the nitrate of silver (1 part to 5). Very intense pain resulted with phlegmon and suppuration on the fourth day. Quite thick pus escaped after an opening was

made. But in nine days the patient was quite satisfied with the result, for although he still suffered from the pain during micturition, it had completely disappeared during the interval.

Again in a patient with scapulalgia, where punctate cauterization had effected no result, an injection of four drops of the same solution into the connective tissue immediately in front of the painful region, was followed by intense pain; local suppuration and an abscess on the fifth day. But on the second day after the injection the deep seated pain was completely relieved, and movement of the limb was readily effected.

Le Dentu concludes with the remark that he has always seen a small abscess result from the operation, but that by opening the former prematurely—say on the fourth or fifth day, this inconvenience would be much lessened.

Gastric and Intestinal Gases, with Flatulent Dyspepsia. —Leven. (*L' Union Méd.*, Oct. 11, 1877.) The following are the author's conclusions:

Alimentary substances do not seem to produce gas; that which is found in the digestive tube is derived from external air, blood or fecal matter. The gases produced in flatulent dyspepsia are not due to the decomposition of alimentary substances, but are derived from the three sources mentioned above. They are kept in continual motion by the pathological contraction of the muscular fibres of the intestine; they are continually renewed; their production may be incessant, as well in an individual who is fasting, as in one who is nourished.

This symptom, production of gas, signifies, therefore, an intestinal irritation which is always consecutive to a prior gastric dyspepsia.

The course of the disease and the treatment requisite to cure it, confirm these clinical facts.

There is no necessity for seeking a medication to relieve the gas, and, as for the powders, such as charcoal, which are said to absorb it, they actually have no such effect, as the author has proved by experiment. A block of charcoal, it is true, may absorb gas, but as soon as it is reduced to powder it loses its absorptive power.

A New Investigation of the Rôle of the Alkalies in the Animal Economy.—Mialhe. (*L'Union Méd.*, Oct. 11, 1877.) The fact of the indispensable necessity of the constant presence of the alkalies in the animal economy was first established, in 1824, by Chevreul; but he attributed this to a need of the caustic alkalies, while it should be properly referred to the alkaline bicarbonates.

In the present state of science we are authorized to say that the influence of the alkalies upon organic matters, which renders possible their oxydation in the sphere of the animal economy, can no longer be questioned. This the author has demonstrated in several memoirs on digestion, assimilation and organic or vital oxydation. Inorganic bodies certainly exist in the organs of animals, and these exhibit an indisputable activity; such are iron, phosphate of lime and the alkaline bicarbonates.

Resting upon these facts, Mialhe endeavors to solve the question: Can the alkaline bicarbonates, when administered in large doses, give rise to a special cachexia, designated as the alkaline cachexia? This question he answers in the negative, and concludes with some general considerations relative to the administration of the alkalies.

What is proposed by the administration of the sodic bicarbonated waters? The end desired is the introduction into the blood of a proportion of the bicarbonate of soda, sufficient to sensibly modify the intimate composition of the albuminoid materials with which the alkaline element enters into combination; and, as a result, the stimulation of the phenomena of organic or vital oxydation, as well as that of endosmosis and exosmosis, with a view to modify the nature of secretions, etc.

What, now, is the proportion of the bicarbonate of soda which it is proper to introduce into the economy, in order to produce this result?

It is impossible to give a categorical answer to this question, because the proportion of the alkaline base which exists in the animal economy, whether in the state of the bicarbonate or of the albuminate, is far from being always the same, not only in the animals of the two great classes, the herbivora and the carnivora, but also in animals of the same species. Thus the

herbivora have their humors alkaline in a different sense from the carnivora, whence it follows that man, who is omnivorous, should occupy a middle ground between the two, and, from the point of view of his humoral alkalinity, approach either the herbivora or the carnivora, according to the nature of his alimentation. This is precisely what occurs. The inhabitant of the city, the wealthy individual, has need of a larger dose of alkali to restore his humors to a physiological state, than the person who lives almost exclusively upon a vegetable diet.

The function of the skin should not be neglected. The practitioner should remember, in prescribing alkalies, that a patient who perspires, loses a portion of his acids from his economy, and to be properly "alkalized" he requires a less proportion of alkaline base.

Neither should it be forgotten that a patient living much in the open air and performing much muscular exercise, in order to be "alkalized," requires a smaller quantity of the bicarbonate than the patient who leads a life of inaction. Account must be had, likewise, of the elevation of the temperature, since this favors the alkalization of the economy, in the manner (without doubt) of enforced exercise; and also because it acts upon the nervous system to such a degree that patients find such medication almost intolerable in the hot season.

The author believes it proper to administer the maximum dose which it is proposed to employ, at once and continuously throughout the treatment. This should be in fractional doses, because it is essential to maintain the economy always at the same degree of alkalization. Hence the importance of frequently examining the urine with litmus paper, in order to be assured of the chemical condition of the former, for nothing is so interesting to the physician as a knowledge of the chemical medium in which are accomplished so many of the mysterious morbid phenomena he is called upon to treat.

Claude Bernard recently announced to the French Academy that sugar was a vital, constant and necessary element of the blood. Mailhe adds that it is his conviction that the alkaline bicarbonates constitute a permanent and necessary element, not only of the blood but of the entire economy.

The Cause of Scorbutus.—Gubler. (*La France Médicale, July* 25, 1877.) For a long time it has been generally admitted that the epidemics of scurvy so frequent in distant maritime expeditions result from lack of fresh vegetables. In studying the report of the English commission on the causes of the epidemic of scurvy among the crews of the *Alert* and *Discovery*, M. Gubler was struck by this fact: that the epidemic declared itself with intensity at the moment when the sailors had resumed an active and fatiguing life on land, after a prolonged repose or very moderate labor aboard ship, at the same time that they were absolutely deprived of fresh food, consisting of beef and lime-juice.

For it is to be observed that fresh foods, meat or vegetables, oppose a real obstacle to the development of scurvy, even under the most disadvantageous conditions, and that vegetables do not alone possess prophylactic virtue, although they possess it in a high degree.

The problem propounded by M. Gubler is: what is the rôle of fresh foods? To what principles do they owe the property of protecting the system from the profound alterations which characterize scurvy? Examining the composition of lime-juice, the learned professor remarks that although citric acid predominates, there is also present a certain quantity of mineral substances, and principally potassa, an alkali which exists normally in the animal fluids, and forms one of the indispensable elements of the globules. Lime-juice may then, in a certain measure, take the place of fresh vegetables, by its two principal elements, organic acid and potassa.

These two elements are also found in fresh meat in less proportion; its reaction is acid, and the salts of potassium are present in notable quantity. Salted meats lose their prophylactic virtue because their acidity disappears, and the salts of potassium dissolving in the brine, are replaced by the salts of sodium in excess. This explains the difference in properties, as regards scurvy, which distinguishes fresh from salted meats.

If the theory of M. Gubler is true, and at first sight it is plausible, navigators should provide themselves either with

wine charged with its tartar, or with organic salts of potassium, which in small volume represent enormous quantities of fresh vegetable matters. It is an experiment easy to make.

L. W. C.

Morphinism.—A. Spillman.(*Archives Générales de Médecine*, Aug., 1877.) Dr. Levinstein designates under this name a pathological state which has become frequent enough since the vulgarization of subcutaneous injections of morphine by the aid of the Pravatz syringe. The symptomatology of morphinism is about the same as that of alcoholism, even including the delirium. This affection is quite common among the better classes. Patients suffering from it are attacked with trembling, hallucinations, inflammatory phenomena of the lungs and intestines.

Morphine becomes indispensible to those who make use of it to ease the slightest ill-feeling or ennui. But the more they use it the shorter the intervals of calm become.

The three patients whose cases Dr. Levinstein publishes, had become habituated to injections of morphine for several years, and had reached the quantity of more than 15 grains a day. The phenomena observed were: hyperæsthesia, neuralgias, insomnia, anxiety, depression alternating with moments of excitement, muscular contractions, and dryness of the tongue. The intelligence and the memory did not seem to be affected.

When morphine is suppressed, either suddenly or gradually, there follows feebleness, trembling, chills, a pronounced coloration of the face, and abundant perspiration.

The prognosis of morphinism is generally serious enough. The patients soon resort to the means which have procured them relief heretofore, or they succumb to marasmus.

The author cites two cases of patients who committed suicide, and five who have given themselves up to alcoholism.

As regards treatment, the author thinks it impossible to suppress the morphine gradually; it is better to suppress it abruptly and to resort to stimulants, as wine or subcutaneous injections of ammonia, to combat collapse. In all cases the subjects of morphinism should be considered and treated as

alienated. Subcutaneous injections of morphine administered by the physician are safe, but in the hands of the patient may become fatal.

Dr. Weinlechner has published a case of a physician who had employed injections of morphine to relieve the pains of a periostitis. The patient had arrived at the point of self-injecting 2½ grammes of morphine a day. His nervous system was considerably shattered, and he was covered with small cutaneous abscesses. He had fallen into a state of complete marasmus.

The subcutaneous injections were suppressed, and replaced by inhalations of chloroform. Recourse was finally had to iodide of potassium, which was followed by almost complete cure.

In a later article, Dr. Levinstein has published a new case of acute poisoning by morphine. It was a lady who had received for the first time an injection of 4½ grs. of morphine. At the end of 20 minutes she had vertigo, was semi-comatose, the pupils were strongly contracted; pulse, 92; respiration, 24. An injection of .0015 grm. of atropine was then given, and repeated twice. The pupils dilated, but the patient fell into a state of somnolence, and the face presented a deep red coloration. Coffee was then given internally, ice applied to the head, leeches to the mastoid processes and in the nostrils. For the somnolence, she was placed in a warm bath. The respiration fell to four in the minute. Electrization of the phrenic nerves was then resorted to. The patient remained completely inert, and fell into a profound sleep. In half an hour the respiration fell to three in the minute. However, the patient awoke for a moment to fall into a profound sleep interrupted by vomiting. The serious results of the poisoning only disappeared at the end of 12 hours, when she recovered consciousness. For 15 days she remained completely prostrated, and only recovered little by little her intelligence and the use of her members.

The urine obtained by the catheter offers the following reactions: treated with soda and sulphate of copper, it presents a blue color; on heating, the hydrated oxide of copper dissolved in the urine is reduced to the state of insoluble oxide of copper;

on adding an alkali and bismuth, a black color is obtained on heating. The angle of polarization is deviated to the right 2.3 deg. At the end of several hours the urine presents all the characters of normal urine.

Dr. Levinstein has completed his studies on morphinism in a recent communication. After having found sugar in the urine of patients suffering from morphinism, he has found albumen. This albuminuria persists for months, even after morphine has been completely suppressed, and when all the other symptoms have disappeared.

All the patients do not become albuminuric; the presence of albumin seems to be in relation with the duration of the use of morphine, and the size of doses employed.

Experiments on animals prove to the author that morphine, given in doses of two to five decigrammes, produces a rapid albuminuria in dogs.

As patients accustomed to the use of morphine injections may seek to deceive the physician, it is well to analyze the urine by Dragendorf's method. One may thus determine the proportion of morphine absorbed. A patient whose urine still contains morphine eight days after the suppression of the drug, must certainly have continued the injections of morphine.

I have been able to prove, in part, the assertions of the author, in a lady of about 50 years who had been advised six years ago to use morphine for the pains of intercostal neuralgia. Since this time the lady had made six to ten injections daily, using thus about 200 grammes in a year. She appears at present like a living skeleton; the appetite is gone, the limbs and head agitated by continual trembling. She is incapable of the least exertion; the least noise agitates her; she avoids the light, and has amblyopia. All means, menaces, persuasion have been employed to induce her to stop this evil habit, which she would only abandon to seek suicide.

The urine of this patient contains a considerable proportion of sugar, but no albumin.

Physicians cannot be too careful in retaining that dangerous instrument, the hypodermic syringe, exclusively in their own hands. L. W. C.

Case of Chronic Chloral Poisoning.—T. Inglis. (*Edinburgh Med. Journal*, Sept., 1877). A man, aged 47, was admitted to the Royal Edinburgh Asylum with the following history. About seven years ago he was ordered by his physician a mixture containing the hydrate of chloral and the bromide of potassium, in order to relieve a spasmodic retention of urine. He took about a drachm of each of these drugs daily for six years regularly, and during this time neither he nor his friends observed any hurtful effect. But the drug so enslaved him that he had a craving for its sedative effect. Six years afterwards he had an attack of bronchitis, and took chloral to allay the breathlessness and procure sleep. The recovery was rapid, but business care brought on some mental depression, and he sought oblivion in choral. At first a 60-grain dose was taken, but was gradually increased till he took 180 grains per diem. He carried a bottle with solution of chloral in his pocket and took a dose of ten grains every hour, or every half-hour; and if he chanced to waken at night he repeated the dose. Sleep was not induced, but a soothing feeling. He complained of no headache, vertigo or depression as the result of the drug, but a feeling of lassitude and nervous debility and exhaustion arose, together with an inaptitude for work and incapacity for continuous thought. His appetite declined, food lost its relish; nausea and sour eructations were complained of, and vomiting occurred frequently. He had slight jaundice; the fæces were hard and white.

As he abandoned chloral eating, he became untruthful, deceitful, irritable and passionate. The natural affection for his wife and children became blunted; he lost his regard of duty and self-respect. When he discontinued using the chloral he took to whisky. He did not take enough to produce complete intoxication, but sufficient to keep him in a chronic state of confusion. He became violent and unmanageable, and threatened suicide. Diarrhœa set in, and was followed by a great discharge of blood from the bowels. Then he got into a state of delirium tremens, which terminated by three severe epileptiform attacks following each other at intervals of four hours.

On admission he appeared prematurely old and broken-down; he was perfectly silly and childish, and almost imbecile in manner. He would laugh and cry alternately without adequate cause; took no interest in what was going on around him; his memory, almost obliterated; his answers, incoherent. There was persistent muscular tremulousness of the upper and lower extremities; power of co-ordination was lost, and he was unable to walk alone. The tongue was furred in the centre, tremulous and pointed markedly to the right side. Articulation was impaired. The pupils were dilated, irregular at the margins and insensible to light. The right side of the face was partially paralysed; the reflex action of the cord was much impaired. He complained of restlessness and exhaustion, but had no headache or neuralgic pains. Respiration and circulation normal. No albumen, sugar, bile or tube casts in urine.

No chloral or any narcotic was given after admission. Was ordered a tonic mixture containing strychnine, strengthening diet, and as much exercise in the open air as he could bear. The regular action of the bowels was promoted by a gentle aperient. The appetite for food returned slowly, but he gained in flesh and appearance very rapidly. The tremulousness and paralytic symptoms disappeared in an astonishingly short time. Pupils remained dilated for about three weeks, but their outlines became regular, and they contracted normally under the influence of light in a few days. Mentally his convalescence was equally speedy. Memory and coherent thought soon returned. After a short stage of stupor his intellect regained strength by degrees, and his emotions and affections resumed their natural condition. He was discharged three months after admission.

IV. Therapeutics.

Croton-chloral.—*La France Médicale*, July 25, 1877.—Dr. Livon, in a recent study of this drug, at the physiological laboratory at Marseilles, arrives at the following conclusions:

This remedy is destined in the hands of physicians, to render as great service as chloral has done. The author does not regard it as a sovereign remedy as it may fail in certain cases, but it relieves pain, and in less doses than chloral, 10, 20, or 30 centigrammes being sufficient to soothe neuralgic pains without profound and forced sleep. Liebreich had already noticed this special action upon the sensibility of the head, but he regards it as perfectly innocuous to the stomach and other organs, while Livon recognizes its irritating and caustic properties, and says it is best not to give it by the mouth in inflammatory states of the digestive system. In patients who have a tendency to cerebral congestion, it is best to abstain from the use of croton-chloral. In case of accidents, artificial respiration should be used, and electricity along the spine and over the course of the pneumogastric.

It is not dangerous to the heart except in large doses. The difference between its action and that of chloral is such that Liebreich advises its use instead of chloral in subjects with cardiac disease.

From all his observations and autopsies, Livon draws the following conclusions:

1. Croton-chloral acts upon the central nervous system.
2. In small doses it acts upon the brain alone, and by its intermediation solely upon the sensitive cranial nerves.
3. In larger doses, its action extends to the cord and sensitive spinal nerves.
4. The motor nerves are only acted upon secondarily.
5. It is only in exaggerated doses that the arrest of the heart's action, and of respiration, may be provoked by cessation of nervous afflux.

It may be given by the stomach or hypodermically. The author's formula for administration by the stomach is:

Croton-chloral,	- - -	2 grammes
Glycerine (warm)	- -	6 "
Ext. licorice	- - -	4 "
Water } Syrup }	aa - - -	45 "

For hypodermic injection his formula is:

Croton-chloral	- - -	1 gr. 60 c.
Glycerine } Cherry laurel water }	aa. -	16 grammes

Each gramme of the solution contains 5 centigrammes.

Divided doses of 5, 10, or 20 centigrammes repeated as required several times in succession, generally succeed in quieting pain. From 50 centigrammes to 1 gramme instantly relieve pains of considerable intensity, and for very severe pain, the dose may be carried up to 3, 4 or even more grammes at once.

The author does not recommend intra-venous injections, on account of the difficulties and dangers that may follow.

For physiological experiments, however, intra-venous injections of croton-chloral made with care, at a certain distance from the heart, constitute a precious means for immobilizing animals destined for the most delicate and difficult vivisections.

L. W. C.

Croton-chloral for Ciliary Neuralgia.— Friedinger.— (*Wiener Med. Wochenschrift*, No. 31, 1877.) Croton-chloral seems to have an almost specific influence on the sensory fibres of the fifth nerve, and it can be more surely relied upon to allay those fearful pains, which attend the violent inflammations of the iris and choroid, and are known as ciliary neuralgia. In all cases in which it was given for this neuralgia, it has exerted its anæsthetising effect without producing any collateral disturbance. This is the formula:

℞	Croton-chloral hydrate -	1 gramme	
	Spir. vin. rectif. - - -	4 "	
	Aq. destill. - - -	150 "	
	Syr. aurant. cort. - -	15 "	M.

1 tablespoonful every two hours.

BOOKS AND PAMPHLETS RECEIVED.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. Von Ziemssen, Professor of Clinical Medicine, Munich, Bavaria. Vol. XVI. Diseases of the Locomotive Apparatus, and General Anomalies of Nutrition. By Prof. H. Senator, of Berlin; Prof. E. Seitz, of Giessen; Prof. H. Immermann, of Basel; and Dr. Birch-Hirschfeld, of Dresden. William Wood & Co. 1877. Octavo, pp. 1,060.

The Ear: Its Anatomy, Physiology, and Diseases. A Practical Treatise for the Use of Medical Students and Practitioners. By Charles H. Burnett, A. M., M D., etc., etc. With 87 illustrations. Philadelphia: Henry C. Lea. Octavo; cloth. 1877; p. 606.

Forensic Medicine and Toxicology. By W. Barthust Woodman, M. D., F. R. S., and Charles Meymott Tidy, M. B. F. R. S. With eight full-page lithographic plates, and one hundred and fifteen other illustrations. Philadelphia: Lindsay & Blakiston. 8vo. 1877; pp. 1,083.

Practical Hints on the Selection and Use of the Microscope. Intended for beginners. By John Phin, editor *American Journal of Microscopy*. Second edition. New York Industrial Publication Company. 12mo.

Lectures on Practical Surgery. By H. H. Toland, M.D., Professor of the Principles and Practice of Surgery and Clinical Surgery in the Medical Department of the University of California. With numerous illustrations. Philadelphia: Lindsay & Blakiston. 8vo. 1877. pp. 506.

Transactions of the Medical Association of Georgia. Twenty-eighth Session. 1877.

Transactions of the Minnesota State Medical Society. 1877.

Annual Report of the City Registrar, of the Births, Deaths, and Marriages in the city of Boston, for the year 1876.

A New Method of Treating Fracture of the Clavicle. By Henry Van Buren, M. D.

Address delivered at the Third Annual Meeting of the Association of Alumni, and Officers of the Medical Department of the University of Buffalo. By Frank H. Hamilton, A. M., M. D.

Delaware State Medical Society. Session at Dover, Delaware, June, '77. Address of the President, John J. Black, M. D.

Long Island College Hospital. Annual Announcement and Circular. 1877–78.

École de Médecine et de Chirurgie de Montreal. Faculté Médicale de l' Université Victoria. Session 1877–78.

Changes in New England Population. By Nathan Allen, M. D.

Hospitals: their History, Organization, and Construction.

Boylston Prize Essay of Howard University for 1876. By W. Gill Wylie, M. D. New York: D. Appleton & Co. 1877. 8vo. Cloth. pp. 326.

MICHIGAN STATE BOARD OF HEALTH.

The regular quarterly meeting of the Michigan State Board of Health was held in Lansing, on Tuesday, Oct. 9th. The members present were: Prof. R. C. Kedzie, Lansing; Homer O. Hitchcock, M. D., Kalamazoo; Henry F. Lyster, M. D., Detroit; Hon. LeRoy Parker, Flint; Rev. D. C. Jacokes, Pontiac; Henry B. Baker, Secretary.

Dr. Kedzie, committee on poisons, etc., read an important report on "Labeling Medicines." He gave many instances of poisoning by taking the wrong medicine through mistake because it was not labeled. He urged that every medicine, and every injurious substance which may be mistaken for medicine, should be distinctly labeled. "Never administer as medicine any substance of the composition of which you are ignorant or in doubt." The paper was accepted with thanks, and a committee, of which Dr. Kedzie is chairman, was appointed to investigate another branch of the subject in reference to danger from the dispensing of drugs or medicines by unqualified or inexperienced persons. This committee is to confer with the Michigan Pharmaceutical Association, which has already given attention to the subject.

Dr. Baker presented tables, diagrams, etc., on the subject of the death rate as relates to age, climate, etc. He gave tables and diagrams for the various States and Territories of the Union.

Leroy Parker, chairman of the committee on legislation, made a brief report relative to the subject of boards of health in cities and villages, and mentioned that since the last meeting considerable progress had been made in securing health officers for such boards. The secretary stated that the progress in this direction had been great, and it was largely due to Mr. Parker's efforts.

Dr. H. F. Lyster read a continuation of his paper heretofore presented on the subject of "Healthy Homes." He considered the subject mainly with reference to their location and the measures to be taken to secure good drainage, and traced much of the ill-health of people to dampness in and about their dwellings. He had issued a circular to the correspondents of the board, and with this paper he presented the substance of about forty replies received, showing the nature of the soil, practice as to tile-draining, sources of drinking water, character of cellars, disposition of decomposing organic matter, etc., about the homes in the several localities. He recommended that wherever the soil is not dry, there should be tile drains around the house or under the cellar.

In the discussion which followed, Dr. Baker deemed it important that such drains should never communicate uninterruptedly with a sewer, which may contain sewer gas, which will thus permeate the house; but the connection should be through an open-air space, or otherwise freely ventilated on the house side of the trap.

Dr. Kedzie said that if box drains be used, they should be placed with one corner down, so as to be self-cleansing.

Dr. Kedzie read a paper on persistence in efforts to resuscitate the drowned. He reported a large number of cases where persons had been resuscitated a long time after they had apparently ceased to live. He claimed that deaths are constantly occurring for lack of thorough efforts at resuscitation, and that whenever such efforts are made they should be continued at least two hours. He cited one instance where only after six hours of constant work did symptoms of life appear, and yet this person was completely restored.

The Secretary read an outline of a report of the work of his office during the last quarter. It included the distribution of about five thousand copies of the document on "Restriction and Prevention of Scarlet Fever," sixteen hundred copies of the Fourth Annual Report of the Board; and the printing of six thousand copies on the "Treatment of the Drowned." Much time had been given to the compilation of "Weekly Reports of Diseases," and a large amount of miscellaneous correspondence and other business had been transacted.

Hon. Leroy Parker read an abstract of papers read before the public health section of the American Social Science Association at Saratoga, which he had attended in the interests of public health in Michigan.

Dr. Hitchcock presented a report and abstract of papers read at the recent meeting of the American Public Health Association at Chicago.

At the last meeting ex-President Hitchcock presented an address by title, and at this meeting it was read. The subject was: "Heredity in its relations to the public health, and to legislation in the interests of public health."

A valuable paper on the diet of infants, by Dr. Arthur Hazlewood, of Grand Rapids, an ex-member of the Board, was accepted with thanks.

The Secretary read communications from Dr. G. W. Topping, of DeWitt, relative to reports of prevailing diseases; from Dr. O. Marshall, of this city, on the subject of opium-eating; from Dr. Edward Dorsch, of Monroe, on lead-poisoning from tin cooking utensils lined or glazed with lead; from Dr. C. W. Marvin, of Ithaca, relative to the recent increase of deaths from cancer; from Dr. J. D. Hull, of Allegan county, relative to drainage in his locality; from Dr. Batwell, of Ypsilanti, relative to sickness from damming the Huron river; from Dr. Charles H. Fisher, of Rhode Island, giving formula for preparation and an account of the first use of sulpho-carbolate of soda as a preventive in scarlet fever.

Dr. Lyster presented a paper on baths and bathing. He gave a history and description of all kinds of baths and their effects on the human body. His paper was also accompanied by numerous replies on this subject from correspondents of the Board to a circular which he had issued.

The Secretary presented his annual report in relation to the property of the Board.

During the year additions had been made to the library, 97 by purchase and 244 by gift and exchange. The library has now 931 numbers.

Medical News and Items.

Karl August Wunderlich, the well known professor and clinical teacher at Leipzig, Germany, is dead.

Married—At West Brooklyn, Ill., by the Rev. C. H. Hoffman, Gustavus F. Schreiber, M. D., and Miss Lettie Morey, all of West Brooklyn.

The Library of the Medical Press Association is under great obligations to Dr. Rauch, President of the State Board of Health, for the donation of the Transactions of the American Public Health Association.

Central Free Dispensary of West Chicago, corner Wood and Harrison Streets.—Statement of dispensary work for September: Vaccinations performed, 454; total number of patients, 1,329; number of visits of patients to the dispensary, 2,259; number of visits to the homes of patients, 343; total number of visits, 2,602; number of prescriptions furnished, 2,377.

Mortality in Chicago during the Four Weeks Ending October 15.—Total number of deaths, 564; males, 312; females, 252; under one year, 142. Principal causes of death: Accidents, 19; apoplexy, 4; cholera infantum, 29; diarrhœa, 32; dysentery, 11; enteritis, 7; convulsions, 57; scarlatina, 37; variola, 5; diphtheria, 23; typhoid fever, 30; puerperal fever 2; phthisis, 56; pneumonia, 15; meningitis, 16; diseases of heart, 13; liver, 2; kidneys, 6.

We have received a printed excerpt from the *Clinton County* (Iowa) *Advertiser*, of Oct. 11, 1877, giving the details respecting the arrest and punishment of a swindler styling

himself Dr. A. G. Walter (alias Williard, alias Bayreuz). He succeeded in fraudulently procuring thirty-one dollars and sixty-five cents from Dr. Chas. H. Lathrop, of Lyons, Iowa, on the ground that he had been commissioned by the "United States College of Surgeons, Washington, D. C.,"—an institution endowed by the general government for the purpose of relieving those afflicted with paralysis and epilepsy. Dr. Lathrop was suffering from paraplegia, and paid the sum named for the purpose of being enrolled as a patient in the institution which it was pretended had been established.

We fully sympathize with Dr. Lathrop, but must express the difficulty we find in understanding how a U. S. Examining Surgeon for Pensions, could be entrapped by such a flimsy and transparent device.

MILITARY SURGERY IN THE TURKISH ARMY.

An artillery-man had a limb shattered by an exploding shell at Sistova, and, incredible as it may appear to those unfamiliar with the organization of the Turkish administration, the unfortunate man had to be transported from Sistova to Constantinople. In spite of his terrible suffering he listened to the latest war news with the keenest interest. Amputation having been decided upon, authority to perform the operation was requested of the minister of war, for, in accordance with the curious customs which the student of the administrative régime of that country is always discovering, no amputation can be performed in a Turkish hospital without official permission. It, of course, frequently happens that the patient dies, while incompetent authorities are deliberating upon the formal demand of the surgeon. Our artillery-man was fortunate in having the consideration of the question respecting his leg conducted with exceptional rapidity, as a conclusion was reached in eight or ten days! The brave fellow who had waited to learn the good pleasure of the administration all the way from Sistova, did not complain of this delay in the least. He finally endured the amputation with heroic courage, and it is hoped he may be saved.—(Le Temps.)

The *Hospital Gazette* and the *Archives of Clinical Surgery* have been consolidated, and form a very creditable semi-monthly journal of twenty-four pages. A further reduction of the number of medical periodicals in this country would greatly enhance the character and value of our periodical literature.

The list of licentiated physicians we publish in this issue, comprises practitioners in Chicago and Cook county. Only about 300 physicians in this county have, so far, complied with the provisions of the law.

In our next number we shall give the official list of licentiates from other counties.

On and after November 1st, the State Board of Health will be in session at the Grand Pacific Hotel, Chicago, to examine candidates for licence. And on the 15th of November, the board will hold a meeting in Cairo, for the same purpose.

Under the head of "Honors to an American," the *St. Louis Clinical Record* makes the following very severe statements, which, if true, ought to be very generally known, and if not true, ought to subject the editor of the *Record* to damages for libel:—

"Several of our contemporaries are giving great prominence to Dr. Sayre's very flattering reception in England. It seems that Dr. Sayre went to England to advertise his (*sic.*) method of treating spinal curvature. He intends to publish a book describing his (?) process and expects a large sale under an English copyright.

"This would be all very well—in fact, just as it should be—if Dr. Sayre had ever invented anything, which he never did, so far as we are informed.

"'Dr. Sayre's hip-joint splint' was invented by Dr. Davis.

"'Dr. Sayre's plaster-of-Paris jacket' was invented and first applied by Dr. Bryan, of Lexington, Ky.

"'Dr. Sayre's method of self-suspension in rotary-lateral spinal curvature' was invented by Dr. Benj. Lee, of Philadelphia.

"'Dr. Sayre's lectures on orthopædic surgery' were by Dr. Louis Bauer, formerly of Brooklyn, N. Y., now of St. Louis.

"As a plagiarist and 'father of other men's ideas,' Dr. Sayre is without a rival. We are glad to see that our English cousins delight to honor such representative Americans (Heaven save the mark!) as P. T. Barnum and L. A. Sayre. *Vive le humbug!*"—(*Phil. Med. Times.*)

Opening of the Colleges.—The regular session of the *Chicago Medical College* was opened with the usual public exercises, on the evening of the 1st inst. Prof. J. S. Jewell delivered the opening address. His effort was a variation upon the hackneyed subject for college openings of "how to to succeed in the chosen profession." He spoke of "the course men usually take to fail in the profession," etc.

The size of the class of this college is larger than that of last year, at the beginning of the session, notwithstanding the increase in the severity of the conditions of matriculation and graduation, voted last spring.

Rush College commenced her course of lectures with public exercises, on the evening of the 2d ult. Prayer was offered by Rev. Prof. Hyde, and President Allen spoke a few words on the lives, character and services of the three distinguished men who had preceded him in the presidential chair, Drs. Brainard, Blaney and Freer.

The regular address of the occasion was delivered by Prof. J. H. Etheridge, who had chosen for his subject, "Waste and Repair."

The class at the opening of the session is over 350.

The Woman's Hospital Medical College began her annual term with a jubilee and much felicitation on the evening of the 9th ult. Notwithstanding a drenching rain, the evening was a gala time for this institution. The college has a right to congratulate herself, and receive the congratulations of her friends and neighbors, for she has moved into a new house, which is her own, where she intends to stay. The college building on Lincoln street, opposite the County Hospital, which has been rebuilt for this institution, is the most com-

plete and convenient medical college building we know of. It is large enough to accommodate a class of one hundred; has two lecture rooms, a chemical laboratory, dissecting room, microscope room, museum, all the necessary closets and anterooms, and a parlor, and a statue of *Minerva* crowning the building.

The Chairman of the Building Committee, Prof. T. D. Fitch, made a statement of the history of the organization of the faculty and the building of the present structure.

Prof. C. W. Earle gave the address of the evening, which dealt with the history of the college, and the subject of the education of women in medicine in Chicago.

Prof. W. E. Quine made a brief speech in behalf of the new members of the faculty; and Dr. Ephraim Ingals, in a a few happy impromptu words, congratulated the college, the faculty, and the movement for the medical education of women, on the fortunate auspices under which the college this year was beginning its lecture term.

About thirty students are matriculated at this institution.

THE MEDICO-LEGAL INVESTIGATION OF SPERMATOOZA.—Ferrand. (*La France Médicale*, Oct. 3, 1877). One of the most difficult tasks of legal medicine, is the characterization of seminal stains. When the stains are old and have been subjected to either friction or freezing, it is often well-nigh impossible to separate the spermatozooids, and to secure them upon the stage of the microscope in sufficiently good condition and number to justify a positive and final conclusion as to their character. Almost invariably the animalcules have been broken. The large extremity generally called "the head," is detached from the filiform appendix which is called "the tail," the various parts are more or less deformed; and the dimensions and general aspect of the whole equally suggest either debris of tissue or organic infusoriæ.

Longuet, after giving especial attention to this question, has recently communicated to the Society of Legal Medicine, the result of his researches. The procedures employed by him for the recognition of the spermatozooids, are so simple and practical, that they deserve to be given a wider publicity.

The first requisite on the part of the expert is a manipulation, which is the same, whatever method be finally adopted for the isolation of the elements. It consists in putting a piece of the solid material in contact with distilled water, so that by imbibition, the tissue itself and the material with which it is impregnated may become swollen. This done, it is placed on a slide of clean dry glass by the aid of needles, when it is carefully picked apart in such a manner as not to break any elements that may be present. Thread by thread, and fibril by fibril, the careful dissection is made until each form is isolated and subjected to a minute examination in turn under the objectives of the microscope. In order to render the whole more visible and to better limit the contour, a weak solution of iodine is used for the purpose of staining the tissue.

Too much precaution cannot be taken. The trouble with the procedure is, that however careful the expert may be, he is liable to create artificial spermatozooids which may be confounded with the real. "Certain vegetable fibrillæ, particularly those of hemp, contain in their interior, certain ovoid granulations, slightly flattened in their longest diameter and very refractive, which precisely resemble, in dimensions, aspect and form, the so-called head of the anamalcule. These granules become free as soon as the cellules are destroyed, and are dispersed in the liquid where the debris of the material is floating."

Longuet accordingly has searched for a coloring matter which by its elective action would permit one to distinguish between the anamalculæ and the vegetable detritus; and, after numerous essays, be succeeded with ammoniacal carmine, such as the histologists use. The spermatozooids behave differently in the presence of the carmine, according as they are fresh, or old and dry. When recent they are very slightly changed; when old, they fix the color with great intensity, more particularly in the large extremity, the so-called "tail" remaining uncolored. This singular property suffices for their immediate recognition, even when they are surrounded by foreign elements which affect analogous forms.

The author advises as follows:

1. Take a small square of the material, supposed to be stained with semen, cut as nearly as possible from the centre of the stain.

2. Plunge the little square of material into a small quantity of distilled water, colored by a few drops of an ammoniacal solution of carmine (5 or 6 drops to 5 grammes of water).

3. Leave this to macerate for 36 or 48 hours, and even more, for no inconvenience will result.

4. Separate the threads of the material very carefully, thread by thread and fibre by fibre.

5. Isolate each separate fibre.

6. Examine each separately by the microscope, with an enlargement of 500 diameters, each morsel being placed in a drop of ordinary glycerine.

In a preparation thus made, clusters of spermatozooids will be seen for the most part entire, "the head" colored a light red, "the tail," without tint, disseminated among non-coloured vegetable fibrillæ of perfect refraction.

The advantage of this method lies in the fact that the results are most decisive according as the stain is old—that is, under the most unfavorable circumstances, for nothing is more easy than the isolation and recognition of spermatozooids in recent stains.

Editorial.

Advertising—Professional and Commercial.—Not long since two advertising pamphlets were extensively circulated throughout this city, largely filled with certificates of certain physicians of the city of New York, attesting the virtues of the Hunyadi Jànos, and the Apollinaris mineral waters. The majority of the names signed to the certificates appear in both of the pamphlets. To establish the identity of the persons, the certificates are preceded by elaborate headings, which narrate what chairs those making them, occupy in a particular college—the hospitals in which they hold appointments—and

of one, we are even favored with his office address. The certificates are so much alike that the doctors could have exchanged signatures without doing each other injustice; or they might have written, as one did, "I fully concur in the above." A careful perusal of these pamphlets engenders the doubt whether the advertisements are designed chiefly for the benefit of the venders of these remarkable waters, or for that of certain doctors in New York city, who fill chairs in a college named—who are connected with certain hospitals, and who may be consulted by the afflicted at a widely advertised number and avenue. Immediately after these pamphlets had been disseminated through the mails, an abbreviation of the certificates, with the names of those making them, appeared in displayed letters in the most conspicuous place of the leading daily papers of the city of Chicago: and these advertisements have been reissued from day to day to the present time. The action of these physicians, if not less defensible, would be less noticed, if analysis of the waters revealed in them any unusual properties. The principal ingredients of the Hunyadi János water seem to be the sulphate of magnesia, and the sulphate and bicarbonate of soda; a simple saline laxative, such as may be obtained at every drug-store, however unpretending; or from the saddle bags of any backwoods' doctor. We never before have known so many eminent names invoked, for so simple a purpose, as to prescribe a "dose of salts." Truly a mountain has labored, and less than a mouse is produced.

We write both in sorrow and in anger. These gentlemen, standing in the medical profession among the first in America, owe an apology for this act; they should publicly make such penitential confession, as may prevent this disgrace from ever being quoted as a precedent. It is a palpable violation of the spirit; if not of the letter, of the code; and the code should be observed by members eminent in the profession, if not by others. If these certificates had appeared over the autographs of so many designing charlatans, there would have been a manifest fitness in the whole transaction. The city of New York is one of the centres of medical education in this

country; and these saline professors are enrolled among its teachers; and this act of theirs is certainly a most reprehensible example to set before the pupils under their instruction, as well as to the entire profession and public. It is a satisfaction to us that we at no time have had occasion to blush for any such flagrant violation of professional propriety in the West.

OFFICIAL LIST of Licentiates of the Illinois State Board of Health who have qualified since the last announcement made in this JOURNAL:

Frederick Seymour, Cincinnati College of Medicine and Surgery.....Feb. 18th, 1856
Daniel Lord, Chicago Medical College.....March 13th, 1873
Charles N. Dorion, Hahnemann Medical College, Chicago..... .....March 23d. 1869
Isadore Cohen, the University of Vienna, Austria..... ... July 21st, 1873
C. A. Helmuth, the University of Berlin, Prussia..... 1844
John Henry Byrne, Rush Medical College .....Feb. 17th, 1874
G. L. Henderson, Chicago Medical College .....March 9th, 1868
E. F. Ingals, Rush Medical College.....Feb. 1st, 1871
William Goetz. University of Tubingen, Wurtenburg, Germany..... ..May, 1842
D. R. Brower, Med. Department, Georgetown College, Georgetown, D.C...March 3d, 1864
Jno. R. Buchan, Long Island Hospital Medical College, Brooklyn, N. Y...June 26th, 1872
N. P. Pearson, University of Copenhagen, Copenhagen.....June 20th, 853
George W. Hilton, Hahnemann Medical College, Chicago. .....Feb. 22d, 1877
Charles J. Simons, Albany Medical College, Albany, N. Y.....Dec. 24th, 1876
William H. Woodbury, Hahnemann Medical College, Chicago.....March 1st, 1866
R. H. Bingham, Castleton Medical College, Castleton, Vt.....Nov. 21st, 1849
D. A. K. Steele, Chicago Medical College, Chicago.....March 13th. 1873
Leonard St. John, Royal College of Surgeons, London, Eng..... .....Nov. 20th, 1873
A. H. Tagert, The University of Vermont. Burlington, Vt.....June 9th, 1866
E. M. P. Ludlam, Hahnemann Medical College ....Feb. 26th, 1861
A. E. Small, Medical Department Pennsylvania College, Philadelphia, Pa...March, 1842
George W. Goodner, Chicago Medical College, Chicago.....April 10th, 1869
S. D. Jacobson, The University of Copenhagen, Denmark..... ....June 20th, 1862
F. L. Breidenstein, The University of France, Strasburg.....Sept. 10th, 1841
W. K. Evarson, Eclectic Medical College of Pennsylvania.
L. W. Case, Rush Medical College, Chicago..... ....Feb. 2d, 1870
John Schuller, University of Giesen-Giesen, Hesse Darmstadt.....Dec. 6th. 1854
Matthew O. Jones, Medical Department University of Pennsylvania, Pa...March 8th, 1850
E. W. Edwards, Washington College, Baltimore, Md. .....Feb. 20th, 1846
Frank W. Edwards, Rush Medical College, Chicago.....Feb. 22d, 1876
A. W. Gray, Chicago Medical College. Chicago ....March 4th, 1868
J. A. St. John, Chicago Medical College, Chicago ....March 13th. 1873
F. B. Ives, Rush Medical College, Chicago.....February, 1850
Geo. M. Emmerick, Chicago Medical College ....March 13th, 1873
Charles E. Davis, University of Michigan.....March 1st 1874
Eugene A. Mullan, Jefferson Medical College.....March 11th, 1874
C. C. Higgins, University of Iowa, Keokuk..... ....June 25th, 1863

Allen W. Hagenbuch, Rush Medical College.....Feb. 15th, 1876
Peter J. Rowan, University of Toronto, Canada.....June 8th, 1870
A. S. MacLennan, Royal Col. of Physicians and Surg., Kingston, Canada..Mar. 20th, '73
S. Saur, Georgetown College, D. C.....March 15th, 1855
A. S. Munnsell, Chicago Medical College.....March 14th, 1871
A. L. Freund, Bennett Medical College.....Feb. 21st, 1877
John H. Hollister, Berkshire Medical College.....Nov. 7th, 1847
George W. Gurnea, Rush Medical College.....Feb. 21st, 1877
Temple S. Hoyne, Bellevue Hospital Medical College..... March, 1865
John B. Braun, University Erlangen, Bavaria,.....June 14th, 1848
C. P. Simon, University of Leipsic, Saxony.....Jan, 2d. 1864
James Lawless, Rush Medical College. .....Feb. 21st, 1877
A. R. Jackson, Medical Department of Pennsylvania College.....March 7th, 1848
T. Hoffman, Rush Medical College.
G. A. H. Sienanke, Chicago Medical College.....March 20th, 1877
J. F. Schafer, Rush Medical College..... Feb. 19th, 1873
J. M. Hall, College of Physicians and Surgeons, New York City.....March 3d, 1874
F Cehavett, Bennett Medical College.....Feb. 27th, 1869
M. H. Luken, Rush Medical College.....Feb. 19th, 1873
W. J. Johnson, Chicago Medical College.....March 4th, 1868
T. C. Duncan, Hahnemann Medical College, Chicago.....March 1st, 1866
Annie E. Bailey, Hahnemann Medical College, Chicago.....Feb. 11th, 1875
R. Tilley, Chicago Medical College.....March 21st, 1871
J. A. Mead, Rush Medical College.....Feb. 15th, 1876
T. S. Bidwell, Western Reserve College, Ohio.....Feb. 24th, 1863
N. L. Hurlbut, Rush Medical College.....1852
Charles G. Smith, University of Pennsylvania.....March, 1851
Helen J. Underwood, Female Medical College, New York City.....March 21st, 1872
L. Pratt, Pennsylvania Homœopathic Medical College.....March 1st, 1852
C. C. Spry, Chicago Medical College.....March 4th, 1874
J R. Kippax, Hahnemann Medical College, Chicago.....March 1st, 1869
Marcus Swain, Dartmouth Medical College, N. H.....Oct. 28th, 1833
T. Wild, Rush Medical College.....Jan. 25th, 1865
N. W. Abbott, Berkshire Medical College.....November, 1844
S. J. Jones, Medical Department University of Pennsylvania.....March 15th, 1860
R. C. Hamill, Licentiate Ohio Med. Col. 1838; Rush Medical College.....Feb. 25th, 1861
H. M. Lyman, College of Physicians and Surgeons, N. Y.....March 14th, 1861
H. Moer, Eclectic Medical College, Cincinnati.....May 28th, 1864
Frank H. Davis, Chicago Medical College.....March 14th, 1871
G. Hessert, University of Wurzburg, Germany.....Aug. 14th, 1858
H. Kirchstein, University of Breslau, Germany.....June, 1862
Jacob Dal, Hahnemann Medical College .....March, 1872
H. P. Merriman, Chicago Medical College.....March 9th, 1865
S. W. Austin, Albany Medical College, Albany, N. Y.....Dec. 28th, 1854
Wm. J. Hawkes, Homœopathic Medical College, Philadelphia..... March 1st, 1867
R. E. Ulrich, University of Wurzburg, Germany.....July 7th. 1871
Lizzie Dyson, Female Medical College of Pennsylvania.....March 15th, 1864
Thomas Bevan, Medical College of Ohio.....March 4th, 1851
A. N. Sheffner, Bennett Medical College, Chicago.....May 21st, 1875
Jacob S Kauffman Rush Medical College.....Feb. 16th, 1875
George H. Hall, Hahnemann Medical College, Chicago,.....February, 1864
Henry H. Sloan, Chicago Medical College.....March 20th, 1869
L. Bedford, Homœopathic Medical College of Pennsylvania.....Feb 24th. 1865
C. H. Von Tagen. Homœopathic Medical College, Pennsylvania.....March 2d, 1858
J. A. Lane McGill College, Montreal, Canada .....March 28th, 1877
R. N. Token, Bellevue Hospital. Medical College, New York City.....March 1st, 1875
J. A. McWilliams, Chicago Medical College.....March 1st, 1876
James E. Gross, Hahnemann Medical College, Philadelphia.....March, 1850

N. S. Davis, Fairfield Medical College.....Jan. 31st, 1837
Wm. H. Morgan, Rush Medical College.....Feb. 17th. 1874
J. A. Freeman, American Medical College, Cincinnati. Ohio.....Feb 3d. 1855
J. V. Bachelle, Rush Medical College.....Jan. 25th, 1864
E. H. Horsey, Queen's University, Kingston, Canada.....April 15th, 1869
William A. Crocker, Medical Department University of New York.....March 15th, 1876
Peter S. Macdonald, Rush Medical College.....1864
Arthur B. Hosmer, Chicago Medical College.....1875
William S. Johnson, Hahnemann Medical College, Chicago.....1868
Henry Tombocken, Rush Medical College.....1866
James P. Mills, Hahnemann Medical College, Philadelphia.....1874
Pierre Marchand, University of Vermont, Burlington, Vt, ...1862
Luther C. Bean, Woodstock Medical College, Woodstock, Vt.,.....1849
Andrew J. Baxter, Ohio Medical Colleg.....March 4, 1861
George E. Shipman, College of Physicians and Surgeons, New York City....Sept. 2, 1843
Elihu G. Cook, Western Homœpathic College of Cleveland, Ohio.....Feb. 27, 1863
A. B. Wescott, Eclectic Medical Institute, Cincinnati, Ohio,.....Feb. 15. 1857
Louise M. Dawson, Woman's Hospital Medical College, Chicago.....Feb. 27, 1877
Albert G. Beebe, Bellevue Hospital Medical College, New York .....March 1, 1870
Juliet Caldwell, Homœpathic Medical College, University of Michigan....March 28, 1877
Edmund C. Rogers, Albany Medical College.....January 25, 1853
James Nevins Hyde, Medical Department University of Pennsylvania....March 13, 1863
Fred. A. Beck, Chicago Medical College,.....March 20, 1877
Edward B. Taylor, Bennett Eclectic Medical College, Chicago..... Feb. 21, 1877
Alfred G. Schloesser, Rush Medical College.....Feb. 1, 1871
William R. McLaren, Hahnemann Medical College, Chicago.....Feb. 20. 1871
Samuel P. Hedges, Hahnemann Medical College, Chicago.....March, 1867
A. B. Newkirk, Starling Medical College, Columbus, Ohio..... ...March 1, 1849
Robert Bosch, University of Rostock, Germany.....Nov. 2, 1864
Mary A. Ries, Bennett Eclectic Medical College, Chicago.....Feb, 22, 1877
Ferdinand C. Hotz, University of Heidelberg, Germany.....Dec. 16 1865
Nelson H. Church, Rush Medical College, Chicago.....Feb. 3, 1869
Eugene Marguerat, University of New York, New York City .....March, 1859
Christopher C. P. Silva, Funchal College, Madeira Isl'd, Portugal.....October, 1861
George O. Rutledge, Chicago Medical College.....March 20, 1877
William P. Dunne, Rush Medical College.....Jan. 25, 1867
Julia H. Smith, Chicago Homœopathic Medical College.....March 5. 1877
George A. Hall, Homœpathic College, Philadelphia.. ..... March 1, 1856
Raymond L. Leonard, Rush Medical College.....Feb. 17, 1872
S. C. Pitcher, Jefferson Medical College, Philadelphia.....March 10, 1864
Fred. F. Laws, Chicago Medical College.....March 10, 1874
Hans Jacob G. Koren, Collegium Fredericianæ Regiæ Academicum Universitatis, City of Christiania, Norway.....June 7, 1869
F. R. Mergler, University of Wurzburg, Germany.....Feb. 15, 1840
Fred. Schubart, University of Heidelberg, Germany.....Nov. 24, 1851
Harry Brown, McGill College, Montreal, Canada.....March 18, 1873
Patrick M. O'Connell, Missouri Medical College, St. Louis.....March 2, 1877
James H. Etheridge, Rush Medical College.....Feb. 4, 1869
William W. Winter Eclectic Medical Institute, Cincinnati, Ohio.....May 17, 1859
Edward H. Webster, Chicago Medical College.....March 20, 1877
B. P. Reynolds, Eclectic Medical College of Pennsylvania, Philadelphia.....March, 1863
H. C. Jessen, Hahnemann Medical College of Missouri, St. Louis.....March 1, 1874
Geo. W. Williams, Chicago Medical College.....March 13, 1873
George Kellogg, Buffalo Medical College, Buffalo, N. Y.....Feb. 25, 1854
John W. Tope, Rush Medical College.....Feb. 2, 1870
Edmund Andrews, Medical Department University of Michigan.....April 6, 1853
Charles L. Rutter, Chicago Medical College.....March 4, 1868
Sigismund D. Neve, Hahnemann Medical College, Chicago.....Feb. 22, 187

Benjamin E. Dailey, Georgetown College, D. C.....March 10, 1874
E. G. H Miessler, Hahnemann Medical College, Chicago.....Feb., 1873
Jacob Breen, Georgetown Medical College, D C.....March 9, 1871
Helen A. Heath, Chicago Homœpathic Medical College.....March 5, 1877
David S. Smith, Jefferson Medical College, Philadelphia.....March 14, 1836
Mary H. Thompson, Chicago Medical College.....March 22, 1870
Henry N. Small, Hahnemann Medical College, Chicago.....March 1, 1866
David B. Trimble, Jefferson Medical Coll ge, Philadelphia.....March 12, 1837
Chas. H. Lovewell, Universiay of Michigan.....March 29, 1871
F. L. Wadsworth, Rush Medical College.....Feb. 3, 1869
Albert E. Hoadley, Chicago Medical College.....March 12, 1872
Henry Banga, University of Basle, Switzerland.....Sep. 16, 1871
Oliver T. Shenick, Rush Medical College.....Feb. 21, 1877
Xenophon C apman, Chicago Medical College.....March 10, 1874
C. J Lewis, Rush Medical Col ege.....Jan 25. 1865
Christian Fenger, University of Copenhagen, Denmark.....Jan. 1867
Ephraim Ingals, Rush Medical Co lege.....Feb. 14, 1847
Isidor Sax, Hahnemann Medical Coll ge, Chicago.....Feb. 24, 1877
Martin Phillips, Victoria College, Toronto, Canada.....April 4, 1862
T. Davis Fitch, Rush Medical College.....Feb., 1854
William Reinhold, Rush Medical College.....Feb. 5, 1868
Isaac N. Lilly, University of Louisville, Ky.....Feb., 1864
F. E. Sherman, Rush Medical College.....Feb. 17, 1873
W. . Westerfield, St. Louis Medical College, Missouri.....March 2, 1859
Thomas A. Lilly, Kentucky School of Medicine, Louisville.....March, 1864
J. Ramsey Flood, Jefferson Medical College, Philadelphia.....March 10, 1866
Henry Geiger, University of Heidelberg, Germany.....Dec. 1861
James W. Hutchinson, Chicago Medical College.....March 3, 1867
C. W. Burrid, Chicago Medical Coll ge.....March 12, 1872
A. B. Clark, Chicago Medical College.....March 21, 1876
Henry T. Byford, Chicago Medical College.....March 13, 1873
Roswell Park, Chicago Medical Col ege.....March 21, 1876
Geo. Keating Dyas, Chicago Medical College.....March 21 1869
Samuel H. Bottomley, Medical Department Lind University.....March 3, 1863
Alex. Steel, University City of New York.....March 5, 1866
Louis Brann, R. M. College.....Feb. 15, 1876
A. W. Smith, Eclectic Medical Institute, Cincinnati, Ohio.....May 21. 1872
Patrick Henry McElroy, R. M. ollege.....Feb. 1, 1871
Rudolph Seiffert, University of Vienna, Austria.....Feb. 13, 1852
Hosmer A. Johnson, R. M. College.....Feb., 1852
Harlan P. Cole, N. Y. Hom r Medical College.....March 3, 1872
" Chicago Medical Co lege.....March 14, 1871
Henry Hooper, Medical Department Harvard University.....June, 1869

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Nov. 5 and 19.
Chicago Society of Physicians and Surgeons—Mondays, Nov. 12 and 26.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 to 4 P. M., by Prof. Holmes and Dr. Hotz.
Mercy Hospital—2 to 3 P. M. Surgical, by Prof. Andrews.
Rush Medical College—1:30 P. M. Medical, by Dr. Bridge.
County Hospital—8 P. M. Necropsy, by Dr. Danforth.
Woman's Medical College—3 P. M. Surgical, by Prof. Owens.

TUESDAY.

County Hospital—1:30 P. M. Medical, by Prof. Bevan; 2:30 P. M. Surgical, by Dr. Bogue.
Mercy Hospital—2 P. M. Medical, by Prof. Hollister.
Eye and Ear Infirmary—2 P. M. Prof. Jones.

WEDNESDAY.

County Hospital—1:30 P. M. Gynecological, by Prof. Fitch; 2:30 P. M. Ophthalmological, by Dr. Montgomery.
Mercy Hospital—2 P. M. Eye and Ear, by Prof. Jones.
Rush Medical College—4 P. M. Diseases of the Chest, by Prof. Ross.

THURSDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
Rush Medical College—1:30 P. M. Neurological, by Prof. Lyman.
Eye and Ear Infirmary—2 to 4 P. M. Operations, by Prof. Holmes and Dr. Hotz.

FRIDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
County Hospital—1:30 P. M. Medical, by Prof. Ross; 2:30 P. M., Surgical, by Prof. Gunn.
Woman's Medical College—10 P. M. Ophthalmological, by Dr. Montgomery.

SATURDAY.

Rush Medical College—2 P. M. Surgical, by Prof. Gunn.
Chicago Medical College—2 P. M. Surgical, by Prof. Andrews and Isham; 3 P. M., Diseases of Chest, by Prof. Johnson.
Woman's Medical College—12 M. Gynecological, by Prof. Fitch; 3 P. M. Dermatological, Dr. Maynard.

Special Clinics daily, from 2 to 4 P. M., at the South Side Dispensary, and at the Central Free Dispensary.

For schedule of lectures at the colleges, apply to the college janitors.

THE

Chicago Medical Journal

AND

EXAMINER.

VOL. XXXV.—DECEMBER, 1877.—No. 6

Original Communications.

AFFECTIONS OF THE NIPPLE AND BREAST INCIDENT TO EARLY LACTATION.

By EDW. WARREN SAWYER, M. D.,

[Lecturer on Obstetrics and Diseases of Children.]

(*A Lecture delivered at Rush Medical College, Chicago.*)

GENTLEMEN,—I propose to occupy the hour in considering some of the common affections to which the breast of the woman is liable, during early lactation. I may say that the management of the breast at this time is one of your most important duties in the lying-in-room; a duty that belongs exclusively to yourselves, and which should never be assumed by the monthly nurse. On account of the obstinancy at times of these affections, their successful management becomes one of your most perplexing cares; while their effect upon the sensitive parturient woman is sometimes so grave as to occasion you the greatest solicitude. But I hope to show that the care of the breast during the puerperal month is suggested by a few simple principles, which I shall endeavor to impress upon you.

To facilitate the study, I will speak first of the affections of the nipples, and second of the affections of which the breast proper is the seat. While this division will assist us in the class-room, you are not to infer that the separation of these affections is closely observed in practice. On the contrary, you will learn that the lesion to which the gland itself is most liable, is usually associated with, and dependent upon the affections of the nipple; and that the first cannot be remedied easily till the diseased nipple is cared for.

Before enumerating the several varieties of "sore nipple," as they are aptly called, the causation of these affections may be spoken of in a general manner. It has been often observed that women who are nursing for the first time, and those who have not nursed for a long time, are the special subjects of lesions of the nipples. This is because the cuticle covering the nipples becomes thin and tender from long disuse, when it is protected beneath the clothing from the influence of the sun and air. Some have said that women of blonde complexion are more liable to trouble from affections of the nipples than others; but I have never observed a marked difference in this respect.

There is a condition, however, which is intimately concerned in provoking these lesions; viz., that of bodily filth, and this, too, often in those women whose exterior gives assurance of quite another condition. During the last days of pregnancy there usually oozes from the nipple a few drops of fatty liquid, the imperfectly formed colostrum. The skin being for a long time covered with this matter, alternately dry and macerated, becomes tender and irritated, and ready to inflame as soon as the child is put to the breast. Even before the child is born, contact with the clothing may be sufficient to excite this inflammation.

Another determining cause of lesions of the nipple, is the undersize of the organ. The smaller the nipple, the greater the liability of having trouble during the first days of nursing; because the nipple is mumbled for a long time by the infant, in its efforts to keep its hold upon the organ.

In this connection, I may very properly speak of the ad-

vantages of putting the child very early to the breast, especially if the woman has small, or retracted nipples. The nipple is larger and more prominent just after labor, and is much more readily seized by the child than at a later date. If the putting of the child to the breast be for a long time delayed, until the breast is distended with milk, the small nipple is encroached upon, and retracted by the swelling of the breast, and seems even smaller than before, while the efforts which the child makes to draw it out will be painful and, for a long time, futile. Besides this, there is another consideration. The child is born with an instinct which enables it to nurse at the very moment of its birth. I have seen this instinct nearly extinguished by the usual delay in calling it into exercise; and the child has been forced to learn to nurse after many painful efforts. Unless an unusual degree of exhaustion of the mother positively contra-indicates such a course, I apply the child to the breast before I leave the house, during the first hour *post partum*. Such a procedure, as you know, has the further advantage of maintaining the uterus in a state of tonic contraction, which is the greatest safeguard against hæmorrhage after delivery.

The chief exciting cause of lesions of the nipple, is the mechanical irritation to which the part is subjected during the early days of nursing, under one or more of the determining conditions, of which I have just spoken. Practically, this is the only exciting cause which operates at this time.

A notion is entertained by many that certain irritating states of the secretions of the child's mouth, operate chemically in causing sore nipples. The affection called thrush, which is a fungoid exudation occurring in patches upon the tongue and inside of the cheeks, has been specially condemned, as the cause of the lesions in question. But I have never observed a single confirmation of this notion. Many women nurse a child with thrush, and escape sore nipples. And many others are the victims of these affections, whose children are free from thrush.

The division of affections of the nipple into several distinct varieties, which has usually been made, is of importance only

because of the different degrees of painfulness of these affections, and because of the several palliative measures that have been invoked for their relief. But so far as the causation is concerned, and the radical treatment, the classification is of little practical value. They may be enumerated in the following order:

Erythema is a congestion of the superficial structures of the skin; usually the entire covering of the nipple is attacked, and the areola is also sometimes involved. The part is swollen, red and excessively tender. It stands out constantly from the breast, and the slightest contact with the clothing occasions pain. Under appropriate treatment this simple congestion of the epidermis will subside. Or, inflammation occurring, an exudation takes place beneath the superficial layer of the skin constituting

Eczema, in which a variable number of small vesicles are found upon the areola or sides of the nipple. If the affected nipples are placed at rest, the contents of these vesicles become dry, and a little crust is formed which soon falls off, and the part is well. On the other hand, if nursing is persisted in, these vesicles are ruptured, and a little abraded patch remains, which soon becomes an ulcerating surface. Two or more vesicles may coalesce and become torn, thus forming a linear abraded surface, which is torn deeper by nursing, until the crack extends through the cuticle, and even deeper. This is especially liable to occur at the junction of the nipple with its areola.

The contents of the inflammatory vesicles just spoken of are usually clear, or but slightly cloudy. Sometimes, however, under very vigorous nursing, other little blebs appear upon the sides and apex of the nipple, which are filled with blood. These may also be ruptured, and their site be marked by an abraded or ulcerating surface. As the integument becomes toughened by nursing, these little ecchymoses fail to appear.

Fissures about the nipple will more frequently be brought to your notice than the lesions just named, because they are more painful, and yield less readily to the sometimes injurious expedient resorted to by the nurse. Lesions of this kind do

not usually occur till after you have given your convalescent patient into the charge of the monthly nurse. The pain, incident to nursing from the tender nipple, has been heroically borne till this time, when the part becomes cracked, and the woman has no longer the hardihood to persist in suckling her infant. You can have no adequate idea of the amount of suffering that the woman endures under these circumstances, until you have been told, as I have, that the agony of giving birth to the child was less than that of nursing.

Besides the pain, there is marked constitutional disturbance in the case of the woman. The appetite fails; she becomes discouraged and demoralized. Her night is disturbed, because in her fitful sleep she dreams of the cries of the child, that warn her of the time of nursing; and the dread of this rises constantly before her. Moreover, I have known the puerperal woman to have an elevated temperature, of even 103° F., which had no other explanation than the fissure of the nipple.

I have said that the woman has no longer the hardihood to nurse her child. This fact is of the greatest significance, for it determines another, and much more grave affection of the breast itself, of which I shall speak hereafter.

The direction of fissures is usually transversely across the nipple, at any point from the base of the organ to its tip. A common site is where the nipple joins the breast; though a nipple may be cracked high up on one side, and near its base upon the opposite. The length and depth of such cracks are variable; from the merest chap, scarcely long enough to be seen, to a clean-cut fissure, which nearly, or quite encircles the nipple, and threatens to amputate the part.

Fissures of this kind are so easily recognized, that they need never be overlooked. Simply putting the integument upon the stretch, is sufficient to reveal their exact site. But there is another variety of fissure not so readily seen upon inspection of the part; I speak of a fissure located upon the summit of the nipple. Most observers do not describe this variety, which actually occurs with the greatest frequency.

If the summit of the normal nipple is carefully examined, it will be seen to be surmounted by a score or more of cone-like

papillæ, separated by little furrows, or valleys. The openings of the milk-ducts may be seen at the bottom of these valleys. A certain degree of care is necessary in your examination, or a fissure of this variety will be overlooked. The woman experiences a smarting pain during, and after, nursing; and sometimes there is blood upon the lips of her infant; but the sensations of the woman do not enable her to locate the lesion. If your examination is limited to an inspection of the part, you, too, will fail to see the cause of complaint. Separate the papillæ with the end of your thumb and forefinger, and at the bottom of the little furrows, of which I have spoken, you will see the fissure. A strong light and the aid of a lens will assist you in finding the lesion. It may seem a slight affair, so far as its length is concerned; or it may be a long zig-zag crack, extending in and out between several papillæ. I have never seen this fissure extend to a greater depth than the thickness of the skin, though some writers have described it, in extreme cases, as cleaving the nipple nearly to its base.

The manner in which this particular fissure is produced is, I think, worthy of a word in passing. You know that a skein of from fifteen to twenty milk-ducts passes through the central portion of the nipple, to open upon its summit. This central portion is not capable of much elongation. But this cone is enveloped in a case of integument, with a layer of loose, fat tissue interposed, which is capable of a very considerable degree of elongation. Now, during nursing, the outside structure of the nipple is drawn outward, beyond the central portion of the organ; in much the same manner as a thimble is raised from the finger. But the comparison is not strictly true, for the integument is very firmly adherent to the summit of the nipple, and limits the drawing out of its envelope. Prolonged, or very forcible nursing, tears the integument upon the top of the nipple, and causes the fissure in question. I have noticed that the general direction of these fissures upon the summit of the nipple is upward, towards the median line of the woman. This fact is of interest, when we remember that this general direction coincides with the chink between

the jaws of the infant, when he is held in the usual nursing position.

I have already alluded to the general effect of severe lesions of the nipple upon the susceptible parturient woman: how she may become demoralized by pain, and the want of sleep incident to nursing, and the dread of nursing; and how you may fail to understand the cause of the elevated temperature, until you have examined her nipples. It may seem to you that the effects are out of all keeping with the trivial lesion which you find upon the part. Permit me here to caution you against thinking that the woman has too little cause for complaint. You will, I hope, remember that it is a real martyrdom which the woman suffers, who heroically nurses her child under these circumstances.

I come now to speak of the treatment of these lesions. When you read the medical journals more extensively, you will be astonished at the number of expedients and drugs which are, from time to time, recommended as specifics for sore nipples. While this very multiplicity of means embarrasses the reader who wishes to know how to treat these affections, it shows that the subject is sufficiently practical to be constantly before the general practitioner. It is not worth your time for me to attempt to enumerate the many details of treatment that have been offered. Fortunately, it is only necessary for you to burden your memory with but a few very simple principles of treatment.

Practically the radical treatment of these various affections is the same for all. Knowing that the immediate cause of these lesions is the mechanical irritation of the nipple, by the mouth of the child, there arises from this fact one indication of paramount importance; viz., to remove the organ from this irritation. This is the maxim in treatment which I cannot too strongly emphasize. Now, how can this be carried out? You cannot interfere with the function of one breast without compromising the gland. Nor can you partially empty both breasts, for the same reason. To remove the nipple from the cause of injury, at the same time to secure the safety of the gland, is the great desideratum. To accomplish this, a variety

of shields have been devised for the breast. They are all made to cover the nipple, as a thimble, and rest air-tight upon the breast, and are surmounted with a false nipple of caoutchouc. If aspiration is applied to the rubber nipple, an incomplete vacuum is formed in the shield, which is filled by the milk from the ducts. The most efficient, at the same time, the cheapest and most simple variety of nipple shields, is this plain bell-glass, with a broad base to rest upon the breast.[1] If the bearing surface of the shield is wetted with saliva or glycerine, it will fit upon the breast more tightly.

It is true that the use of this kind of cupping glass is not always free from pain, because it induces an engorgement of the nipple; but I know of no other way in which the nipple can be placed so nearly at rest, at the same time that lactation is kept up. The immediate relief and rapid improvement which have followed the temporary use of this means, in cases where all sorts of lotions and collodion coatings had failed, have often surprised me.

It sometimes happens that the child is not vigorous enough to draw the milk through the shield; then the aspiration should be made by an adult. In this manner the breast can be sufficiently emptied to protect it from trouble, until the lesion of the nipple has recovered. In the meantime the child can be sustained from the sound breast. Sometimes both nipples are the seat of lesions at the same time. Under these circumstances, if the child is unable to draw the milk through the shield, some other means must be devised, so that the milk may be saved for the infant. I now make use of that simple form of breast-pump, which is practically like the nipple-shield of which I have spoken. The bell-glass has a diverticulum, in which the milk is collected; and in place of the false nipple, there is a large rubber bulb, by means of which the vacuum is made. The milk can be poured from the receptacle, as often as filled, kept warm, and fed to the child with the spoon, or the simple nursing bottle.

This use of the breast-pump is the only use I ever have for it; I believe it to be its only proper use. If it were not neces-

1 Known as Maw's.

sary to collect the milk for the child, the simple emptying of the breast could be done much more safely through the nipple shield. In all cases, I believe it good practice to complete the emptying of the breast with the shield, after the pump has been used.

I have spoken at length of the means of protecting the nipple from the irritation of immediate nursing, because this is, by far, the most important indication of treatment. In the great majority of cases, nothing more than this is required to cure the lesion. Usually, however, there is associated with the ulcers and fissures of the nipple, an inflammation of the cuticle covering the part, which renders the organ excessively tender, and calls for palliative treatment. For this purpose you will find the use of the benzoated zinc ointment most grateful. Wash the part carefully with castile soap and water, and cover the entire nipple and areola with the ointment. It is not necessary to remove the ointment before drawing the milk through the shield. A few drops of carbolic acid, rubbed into the ointment seem to increase its efficiency.

For the very red, and highly inflamed nipple, I have found the solution of acetate of lead a very cooling and agreeable lotion. It is always necessary to wash the lead from the part before the milk is drawn, else, as has been said, the child will be injured by it.

At times the ulcers show an indolence which is easily corrected by touching them with lunar caustic. Ordinarily the ulcer needs only to be kept clean.

If the fissures are deep, and their edges are pulled apart by aspiration, occasioning great pain and a little hemorrhage, it is a useful expedient to glue the wound by coating it with collodion.

Holding as I do that, in the great proportion of cases of these affections, especially in primiparæ, the determining cause is in the fact that the nipple is undersized, I am led to speak of the means of correcting this condition before the end of pregnancy. You will not often have an opportunity of becoming familiar with the breast of the young woman before her confinement; but I have more than once, in the primi-

parous woman, seen a nipple which really did not project beyond the surface of the breast, but seemed rather withdrawn into the latter. Undoubtedly the usual habit of wearing corsets with breast pads is to be condemned as the cause of this flat nipple. If you are consulted, the entire condition is susceptible of change. I direct the woman, during the last months of pregnancy, to make traction upon the nipple with her fingers, at least twice daily. This method is much more effectual than the many varieties of air-pumps sold for the purpose. In fact, the use of these pumps should be interdicted, for they sometimes excite the breast to premature activity.

If you find this flat nipple for the first time after confinement, you may invoke the use of the old-fashioned vacuum to draw it out. A colorless glass bottle, holding a pint or more, with a mouth at least an inch wide, may be filled with hot water. After pouring out the water the bottle is to be inverted over the nipple. The atmosphere within the bottle becomes rarified, and a state of vacuity is approached as the bottle cools, which draws the enclosed part into its cavity. A new clay pipe, such as smokers use, is often used for the same purpose. When once the nipple is large enough for the infant to seize, it will be kept projecting by the efforts at nursing.

Associated with the small nipple, and in many others also, there is a degree of tenderness which is, as I have said, a cause of subsequent trouble. The long continued contact of alcohol does harden the cuticle, and render it less sensitive. Begin early in pregnancy to bathe the nipples and areolæ twice daily with bay-rum, cologne water, or diluted alcohol. The well-known domestic solution of borax, to which alcohol is added, I have found useful for this purpose.

The affection of the breast that you will frequently meet with in the primiparous woman, and exceptionally in others also, is an inflammation of the organ. Perhaps more has been written upon this than upon any other lesion, unless we except the so-called puerperal fever. It must be admitted that the subject is worthy of the attention it has received, because of the gravity of the general and local effects of the affection, and because an inflamed breast is often regarded as a reproach to the

attendant. While it is true, a breast may inflame and suppurate under the most skillful management, it cannot be denied that this result more often occurs under circumstances entirely preventable.

Inflammation about the breast is often thought to be connected exclusively with the puerperal state, or the function of lactation. This is an error. I have recently seen an abscess of the breast in a woman who had nursed her infant for more than a year. Moreover, a form of abscess is met with in newborn children, of both sexes ; and mammary abscess has been reported as occurring in adult males. These facts are sufficient to show that the breast may inflame independently of the special conditions of the newly delivered woman. We shall see presently, however, that exceptional inflammations of this class, have quite another significance than the usual cases occurring during convalescence from confinement.

But the inflammations of the breast of the lying-in woman are not always of similar causation and course. This fact leads to the division of mammary inflammation into two varieties, which I will describe, after calling to your mind some facts concerning the anatomical structure of the breast.

Each breast, as you know, is made up of from twelve to fifteen distinct, wedge-shaped lobes, arranged circularly in the breast ; the small end of the lobes looking toward the centre of the circle. These lobes, in their turn, are made up of many smaller parts, called lobules. Each lobule has an excretory duct, which joins the duct from the neighboring lobule; the whole uniting to form one common duct for that lobe. These grand canals from the different lobes, called the lactiferous ducts, converge toward the centre of the breast, where they turn upward and pass through the nipple, to open upon its summit, as has been already described. The lactiferous ducts do not anastomose with each other, but remain distinct throughout. Just beneath the areola, each duct suddenly dilates into a much larger canal, only to resume a still smaller calibre an inch nearer its opening. These dilatations are called milk-sinuses, and serve as reservoirs for the milk. Each lobe is a distinct gland, of the compound racemose variety, and may be

looked upon as a miniature breast, capable of executing its function independently of its neighbor. In fact, it does just this, when a part of the breast has been destroyed by disease.

But there is another tissue which enters largely into the formation of the breast, and which, so far as the present subject is concerned, is scarcely second in importance to the glandular structure just described. The different lobes of the breast are bound together by a quantity of intervening loose adipose tissue, which also covers the breast subcutaneously, everywhere upon its round aspect, except beneath the areola. It is the deficiency of the fat tissue at this part, that gives this disk a different hue from the surrounding covering. The breast itself rests upon a bed of loose cellular tissue, which attaches the organ to the fascia of the larger pectoral muscle.

From this it is seen that the gland tissue proper is everywhere enveloped in this loose cellular tissue, which sends down partitions between the smallest lobules. The great bulk of the breast is made up of this adipose tissue, which is so variable in quantity in different individuals, that one may have a large, and another a small breast. It is probable that the gland tissue varies but little in different breasts.

The fact of this double structure of the breast establishes a natural division in the inflammations which attack the organ, according as the glandular or the cellular structure is the point of departure. These varieties require separate consideration. I will speak first of that variety in which the glandular element is the starting point, known properly as—

Mastitis. The circumstances attending the establishing of lactation are such as determine an unusual amount of blood to the breast. This hyperæmia is shown in the increase in size of the organ. It is also harder to the touch, and so much heavier that it seems to drag away from its attachments as the woman lies in bed. There is a sensation of fullness experienced, at times amounting to positive pain. This local condition is sufficient to slightly elevate the temperature, and to accelerate the pulse. The term milk-fever is applied to this group of phenomena, about which the older teachers have

written so much; but whose very existence even, is denied by many modern writers. When you come to practice, and to observe everything about your lying-in patient as you should, you will be able to judge for yourselves, whether milk-fever is a real specific condition, or a chimera of the ancients. For my part, I believe it does exist. But I must warn you that milk-fever, at most, is only a slight, and transitory elevation of the temperature, not preceded by a marked rigor; and that any unusual departure from this rule, indicates some traumatism about the parturient canal, or phlegmasia within the pelvis.

It has been said that the great functional activity of the breast is sufficient to determine a true inflammation within the organ. I believe this conveys a most erroneous idea as to the causation of mammary inflammation. In no instance in the economy, is there such a lack of harmony between the end to be attained and the means by which it is attained. Under no circumstances will the physiological hyperæmia of a gland, end in suppuration, if left to itself. You will remember that the various glands within the body, of which the breast may be taken as the type, have a double function; viz., to furnish their peculiar secretion and to empty themselves through their ducts. It is only when the harmony between these two functions is disturbed, that inflammation is induced in the gland.

Now, with reference to the breast, it is an important fact that you may suddenly cease drawing milk from the organ at any time, or refrain from drawing the first secretion after confinement, and if the breast is left absolutely alone, it will not inflame. On the other hand, if the breast is partially emptied to-day, and a little less milk is drawn to-morrow, in the hope that the function of lactation will be gradually extinguished, the breast will almost positively inflame. The maxim is: it is safe to draw no milk from the breast, but it is extremely hazardous to incompletely empty the organ.

Let us examine the operation of this law. If the organ is left quite to itself, withholding all stimulants to the breast and nipple, I mean by this all stimulating friction and all efforts at aspiration through the nipple, a small quantity of milk will

escape spontaneously, probably enough to empty the reservoirs. The hyperæmia of the gland will subside, secretion will be rapidly suppressed, and the gland will gradually return to the condition of the organ before pregnancy. In a word, nature will observe the harmony between secretion and excretion, which is always safe for the secreting gland.

Let us suppose the opposite course to be followed, and the gland to be stimulated. By stimulating the gland I mean, first, the use of all means intended to draw the milk, either by immediate nursing (the infant or a pup) or by mediate nursing, (the breast-pump or shield); second, all frictions applied to the breast, or stimulating embrocations. All these measures cause the gland to furnish more milk than can be carried off. In a word, the harmony between secretion and excretion is interfered with.

These facts are strikingly confirmed in the lower animals. Who ever saw an abscess in the milk gland of the bitch, or cat? And yet the young of these animals are often taken from them without a thought! My teacher used to tell his medical class of a tender-hearted spinster whose cat lost her kittens upon the third day. The mistress, having a vague idea that her pet must suffer from distended mammæ, milked the cat for three days. The result was a mammary abscess—the only one of the kind on record. The domestic cow is not infrequently the victim of mammary abscess, when her calf is taken from her; but this is because she is milked. The buffalo cow, on the other hand, often loses her calf, but she is never milked, and hunters have told me that she never has mammary abscess.

To return to the woman. You have seen that nature has dictated the course to be followed. The danger to the breast is when the attendant follows an opposite course, and stimulates the breast to secrete more milk than can be drained away, because of some obstruction at the outlet of the milk canals. This leads to the inquiry, what is the nature of this obstruction? In other words, what is the real exciting cause which usually operates in obstructing the breast of the recently delivered woman?

I can have no doubt that the cause above all others is to be looked for in the graver lesions of the nipples, which have been described. The effect of these lesions is three-fold: First, the act of suckling gives the woman such pain that she is led to neglect her breast. Second, the inflammation of the epidermis of the nipple may extend into the duct itself, and thus occlude the latter. Third, the excessive irritation, of which the exterior of the nipple is the seat, may excite a spasmodic closure of the milk-ducts as they pass through the nipple; for in this part they are surrounded with muscular fibre. These latter complications are demonstrated in those cases where the woman heroically endures the agony of suckling, and yet the most forcible efforts at aspiration fail to draw milk from the breast.

Dr. M. O. Jones, of this city, narrated to me the instance of a woman under his charge, whose breast threatened to suppurate in one of its lobes. He was of the opinion that the affected part had not been completely emptied. After finding upon the top of the nipple an orifice corresponding nearly to the affected lobe, he passed a small probe, deep into the duct, which overcame the obstruction. Subsequent nursing relieved the breast, and the threatened abcess immediately disappeared. Perhaps with the aid of a lens to find the orifice, this quite original procedure of Dr. Jones, might be often used in practice.

You will hear much, in the lying-in room, of milk becoming curdled in the breast, so that it cannot be drawn. There is as little ground for this, as for many other phantoms pointed out by the nurse. I have often seen, when very forcible aspiration has been made through the nipple shield, little plugs of thickened milk drawn out, and have been led to ask if the milk, which is allowed to remain for a time in the reservoirs, does not become so changed as to obstruct the milk-ducts.

Besides this chief cause of glandular inflammation, you are not to forget that many other accidental causes, as for instance a blow upon the active breast, may operate to excite inflammation of the organ.

I have spoken at considerable length of the manner in

which glandular inflammation is set up, because if this part of the history of the affection is well understood, you can do much to arrest the calamity; and this is to be regarded a greater triumph of art than the skillful management of a breast already containing an abscess.

The symptoms of mastitis may be briefly enumerated. They are those of circumscribed inflammation elsewhere. Pain is present with the first evidences of congestion, and increases in severity, till the inflammation has culminated in suppuration, and the pus has been evacuated. It is described at first as an aggravation of that sensation of engorgement of the breast, which the woman has experienced before. It soon becomes sharp, and cutting, extending toward the shoulder, and down the arm. The pain of a highly inflamed gland is truly excruciating, depriving the woman of sleep, and soon exhausting her. In addition, there is a degree of tenderness of the part, which makes the slightest pressure unbearable, and limits your examination to the most careful handling of the organ.

Heat and redness are the concomitants of inflammation within the breast as elsewhere. The woman sometimes describes her pain as of a burning character. A surface thermometer applied to the breast would show the temperature of the part, elevated above the general temperature of the body.

Redness is not apparent in early inflammation of the gland. In fact a lobe within the breast may be inflamed for days, before any cutaneous redness is seen. It is only when the cellular tissue is involved with the glandular, that the inflammation is superficial enough to redden the skin. The absence of cutaneous redness is one of the features which distinguishes true mastitis from superficial cellulitis.

Swelling of the breast is noticed in the earliest inflammation of the gland. But the breast also is greatly enlarged when it is only engorged to a physiological extent. Very often, in the case of the lying-in woman, you will hear of "the breasts beginning to cake," and of a threatened "bealing" in the organ. This occasions the nurse much solicitude.

She means that there is a circumscribed tumor within the breast, which she fears will end in suppuration. Now, these cakes are of common occurrence throughout the course of lactation. They should never, however, persist after a good nursing. If the cake does not disappear after the breast is emptied, it indicates the beginning of inflammation.

The swelling not only makes the individual lobe more distinct and enlarged, but the entire breast protrudes more—in an unsymmetrical manner—when but one lobe is the seat of the inflammation. The skin over the affected part becomes tense, shiny and white. With mastitis there is the usual sympathetic swelling and tenderness of the lymphatic ganglia within the axilla.

Beside the foregoing local effects of mastitis, the woman experiences the general disturbances of inflammation. Shudderings often occur during the establishment of lactation. These persist, and become more frequent as the physiological engorgement shades into incipient inflammation. The temperature is elevated, and the pulse accelerated. The woman has flushes of heat, and sweats profusely at night. A well marked rigor usually ushers in the formation of pus.

The *ensemble* of these phenomena is such as to seriously interrupt convalescence in the puerperal woman, and to impress the attendant with the gravity of the affection.

Cellulitis. The second variety of inflammation of the breast is an inflammation of the cellular tissue, which everywhere pervades the organ. That cellulitis may occur independently of glandular inflammation, is shown by those instances of furuncular inflammation in the breasts of women who have long ceased nursing, many months after confinement, in infants of both sexes and in men. But puerperal cellulitis may occur independently of glandular inflammation, as I have more than once verified.

Beside the general determining causes of furuncular inflammation that operate with some subjects, as for instance, those with scrofulous dyscrasia, there are many special causes of mammary cellulitis. A blow received upon the breast, even a long time before lactation may be sufficient to light up an inflam-

mation when the breast is in a state of great activity. Writers speak of a miasmatic cause of this affection, which operates one year and not the next. But the exciting cause which operates in the great majority of cases, is an inflammation of the gland tissue proper. Under these circumstances mammary cellulitis is to be regarded as periglandular inflammation. In this connection I may state an observation suggested by a case. The gland tissue may be the starting point of inflammation which subsides after the process has been communicated to the cellular tissue and only the latter suppurate, the lobe escaping.

Now, any portion of the cellular tissue of the breast may be the seat of inflammation. This has given rise to the three distinct varieties of cellular abcess described by writers; the subcutaneous, glandular, and subglandular. Practically, it is of little importance whether the cellular tissue immediately beneath the skin, or an inch deeper in the breast, is inflamed, provided the abscess points externally. But that form in which the pus is pent up between the gland and the pectoral muscle, has a greater claim to be considered separately.

The symptoms of phlegmonous inflammation in the anterior half of the breast, are those of glandular inflammation of the organ, though less severe. Pain especially is much less noticeable. I know a lady who had six phlegmons in one breast, and four in the other, who scarcely complained of pain. A slight rigor would give warning of the successive abscesses. In this case the function of the breast was not apparently disturbed.

Unless the inflammation is deep in the breast, the skin over the inflamed part very early looks bluish-red. The swelling of the organ is not great, except in case of multiple abscesses. As a rule, cellulitis of the breast runs its course much more rapidly, and with less general and local disturbance, than mastitis.

In that form of mammary cellulitis called sub-glandular, the inflammation may have originated in the bed of loose tissue upon which the gland rests; or it may have extended from some point of the inter-lobar tissue, deep within the breast.

The early recognition of this variety is attended with much difficulty. The recurring rigor, or constant chilliness, indicates inflammation, which the pain locates within the breast. But there is no redness of the skin, and if the organ is palpated from side to side, no great pain is caused. But press the organ down hard upon its bed, and a sharp, cutting pain is elicited, quite characteristic of the lesion. Soon the breast is protruded by the engorged vessels at its base and the accumulation of pus, and the case is no longer obscure. The organ may be increased to three times its natural size. The swelling is not confined to the breast. I have seen the front and side of the thorax, and the corresponding shoulder and arm, extremely œdematous in a case of sub-mammary abscess. When a sub-glandular abscess has pointed, usually upon the lower margin of the breast, the skin becomes bluish-red; but until this time the covering has been uniformly white and waxy.

I have deferred speaking of the treatment of mammary inflammation till this time, because certain principles of treatment apply to both glandular inflammation and cellulitis.

An important enquiry is at once suggested: Will the inflammation amount to suppuration? If it is of the cellular variety, and accompanied with enough disturbance to place the existence of a phlegmon beyond question, especially if there is a circumscribed redness of the skin, I believe that suppuration is inevitable, even if it has not already taken place; and time should not be expended upon measures called antiphlogistic. On the other hand, a lobe of the glandular tissue may be hard, well defined and present evidences of incipient inflammation, and still not suppurate.

If either variety is recognized early, put the patient upon a low diet, and keep the bowels moderately relaxed, unless some more important puerperal condition precludes such a course. Much can be done locally to palliate, and perhaps to cut short the inflammation. Ice, or ice-water is often agreeable, and I have seen it effectual. Remember, however, that if you make cold applications to an inflamed breast, great caution must be observed. If the cold is withdrawn too soon, the severity of the inflammation is increased by the reaction that follows, and

the end of that case is worse than the beginning. The following evaporating lotion may be used, however, without restrictions, and I have found its effect cooling and grateful: Dissolve fifteen grains of muriate of ammonia in an ounce each of dilute acetic acid, alcohol and water. Two thicknesses of muslin are to be wetted with this lotion, and kept applied to the part.

In inflammation of the gland itself, certain measures have been much extolled, because of their supposed effect in resolving the inflammation; viz., friction over the inflamed lobe, and the use of drugs. Of the first, I can say that I have rubbed the breast after the most approved fashion, and while I have imperfectly emptied the breast by this means, I am convinced that the inflammation was aggravated. Rubbing stimulates the gland to increased activity, and if there is any obstruction to the flow of milk, you have increased the danger.

The drug named phytolacca decandra, which is the "garget-root" that farmers give to cows under like circumstances, has been recently much employed in arresting glandular inflammation. In the single instance in which I know of its being tried, the process of inflammation was unusually slow, still it ended in an abscess. In giving such medicines you are not to forget that they usually disturb digestion, which fact more than offsets the uncertain effects of fallacious specifics.

The end which you are to have in view, is keeping the breast safely empty. Under most circumstances you can accomplish this by putting the child early and frequently to the breast; or, if the efforts of the child are too feeble, invoke the aid of an adult, through the shield if mediate suction is precluded. By this plan you will often be gratified to see a breast become soft that had been given over to suppuration.

If the lesions of the nipple constitute an obstacle not overcome by these means, the case is most unfortunate, and I think quite exceptional. The attendant is in a dilemma. Upon the one hand is the almost certain occurrence of abscess, because the gland is distended, and, upon the other, the lesions of the nipple which prevent nursing. Dr. Bedford has aptly called this being placed between Scylla and Charybdis. If such a case is presented to me, where the child and the adult fail to

draw milk through the closed ducts, I would not hesitate to etherize the woman, which will relax the spasm of the ducts, and make powerful suction through the nipple. Failing in this, I should, with a lens, seek the orifice of the ducts involved, and pass into them a lachrymal probe, as Dr. Jones did.

In conjunction with these measures, I have for four years been accustomed to apply a binder very tightly about the thorax, wide enough to include the whole of both breasts, sometimes putting a sponge over the inflamed part, under the binder. This serves as a sling, which supports the heavy, tender breast, and, by compressing it against the ribs, lessens the engorgement of the organ. The bandage may be removed long enough to permit nursing from the breast, which is better than letting the nipple through an aperture in the binder.

In this connection I may say that when the child is weaned, or when the child is born dead, I never use any other measüre to prevent mammary inflammation, and have never seen an abscess under these circumstances.

The treatment of mammary inflammation when suppuration is inevitable, may be summed up in a few words. You may know that the abscess has begun to form, when all the symptoms indicate increasing severity of the process: recurring rigors, rising temperature, and increased pain. Under these circumstances you will aim to make the suppuration as rapid as possible. Cover the breast with a thick, hot poultice, of flaxseed meal, spread upon oiled silk, or other impervious material, and change every third hour. A drachm of laudanum may be poured on that part of the poultice covering the abscess.

As soon as the pus has become subcutaneous it should be evacuated. Here let me caution you against making uncertain incisions into the breast. A good rule to follow is, wait until a circumscribed redness of the skin indicates the focus of the abscess. If your finger is passed over the deepest colored part of the cutaneous blush, it will reveal a crater just beneath the integument. At this point you may safely evacuate the pus, using a stiff-handled bistoury for the purpose, and plunging the blade to the depth of half an inch. It is desirable that no part of the areola should be included in your incision. It may

be that your incision has opened a branch of the milk-duct, and milk flows out with pus. This is especially liable to happen if the abscess is near the areola; and this has been called a milk abscess by some writers.

Concerning the future of the breast the seat of abscess, it is well for you to know that the lobe which has suppurated will probably never again perform its functions.

In case of sub-glandular abscess, it is a triumph if you have early detected the presence of pus. An exploring needle passed into the tissue beneath the gland will aid you in this. If the exploration reveals pus, pass a probe or director into the track of the needle which will guide the knife. If this abscess is long neglected, the pus may burrow downward, and point far below the breast. I have attempted the evacuation of mammary abscess with the pneumatic aspirator, with the most unsatisfactory result.

I trust that I need hardly indicate to you that the subsequent management of each individual case will be suggested by your knowledge of those principles of surgery, in which you are so well instructed.

116 Vincennes Ave., Nov., 1877.

INTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR. RECOVERY.

By H. Wardner, M. D., of Cairo, Ills.

[A case reported to the Southern Illinois Medical Association at Anna, June, 1877.]

Medical literature seldom furnishes a record of intra-capsular fracture of the femoral neck occurring in a young person. It is even asserted by most surgical authors that it does not occur. Yet a few cases have been reported, showing that there are exceptions to this as to most general rules.

There may be interstitial changes resulting from disease, or injury, or both combined, by which the power of resistance in the bony structure is so diminished, as to render the person liable to the accident from apparently trifling causes.

The following case of a patient, to whom I was called on the 1st of December, 1876, was undoubtedly one of this class.

The subject of the accident was a lad between fourteen and fifteen years of age, of rather delicate constitution. For a year or more he had suffered from a "fever sore" on the left leg, involving to some little extent the integrity of the tibia, but from which he was recovering at the time.

On the 5th of November, 1876, he was playing with two other lads who had hold of one end of a rope, he having hold of the other and being in the rear, when they all ran down a declivity two or three feet in extent. When the patient came to the edge, the boys in front suddenly jerked the rope, so that he partly jumped and partly fell down the declivity, striking however, upon his feet.

He at once perceived that he had injured the right hip, yet was able to walk to his home, and subsequently to move about, doing light work, upon one occasion even holding the plow. Although he walked with some difficulty, and in an unnatural manner, he continued to exert himself to this extent for twenty-four days.

On the morning of the 29th of the same month, upon attempting to get out of bed, one foot became entangled in the bed-clothing, and this led him to exert forcibly the adductor muscles, when he suddenly cried out with pain, saying his "hip had gone out of place," and he found himself unable to rise.

Dr. H. S. Smith, of Blandville, Ky., was at once summoned. Upon the supposition that a dislocation had been produced, he made efforts at reduction, but without success.

On the 30th Dr. D. P. Juett was called in consultation, and he diagnosticated dislocation of the head of the femur upon the dorsum ilii. The patient was anæsthetized with chloroform, and repeated attempts were made at reduction by manipulation, using the femur as a lever, but so unsatisfactory was the result, that it was decided to secure further advice.

In answer to a note from Dr. Juett, I visited the patient on the evening of the 1st of December, with a view to consultation with that gentleman and Dr. Smith. I found the lad

ing upon his back suffering severe pain. Considerable inflammation had been excited by the attempts at reduction.

The leg was shortened from one to two inches, lying nearly paralell with the opposite limb, the toes everted.

The trochanter of the affected limb was between one and two inches higher than that on the sound side, and turned backward so as to lose the prominence seen in the natural position. It rotated with the limb, so as to describe the arc of a circle somewhat less than natural, but not to a marked degree. There was no effusion or apparent injury to the soft parts about the trochanter. In consequence of the previous attempts at reduction, the parts had become very sensitive. After chloroform was administered, I seized the limb and found it very mobile and easily extended to the full length, when its aspect became entirely normal. A dull crepitation was distinctly recognized in the joint.

The diagnosis of intra-capsular fracture of the femoral head was established, and the treatment adopted at the time, and subsequently continued, was as follows: The patient being placed upon his back on a smooth bed, the foot of which was elevated about four inches, a splint, made after the manner of Hodgen's extension apparatus, was applied to the limb which was elevated ten to fifteen degrees, or until the extending force became sufficient to overcome the shortening, so that when a straight rod four feet long was applied against both heels, it was perpendicular to the axis of the body. The hip now assumed a natural appearance, the trochanters corresponding in position and prominence, and the fragments were thus believed to be in apposition. A wide flannel bandage was then snugly applied about the hips. The lad now said he was free from pain and soon fell asleep. The extension was kept up continuously for fifty-five days. On the fortieth day, a plaster of Paris dressing was applied about the hip, so as to prevent motion, the extending apparatus being removed fifteen days later. The plaster dressing was removed on the seventy-second day, and he was furnished with a pair of crutches. His health remained good during the entire time of the confinement. Dr. Smith writes me that he saw the patient

on the 17th of March, 1877, when he was walking by the aid of his crutches. The injured limb was of the same length as the sound one, and no deformity of any kind was detected. On the 1st of May following, he was reported able to walk without crutch or stick. His friends, who were quite intelligent, appreciated the importance of the case, and expressed great satisfaction at the result.

The interesting features of this case are: the age of the patient; the time from the original injury to the date of the complete fracture; the mode of treatment; and the result.

As to the age in which this fracture occurs, Dr. Gross says: "Experience has shown that it (the neck of the femur) is subject to fracture, as a general rule, only after the age of fifty, when its spongy and compact tissues suffer from atrophy and fatty degeneration, thus rendering it more or less brittle and incapable of withstanding injury."

In a collection of 250 cases made by Sir Astley Cooper, the youngest patient was thirty-eight years old.

Erichsen refers to a case reported by Mr. Stanley, occurring in a young lady of eighteen years.

Dr. F. H. Hamilton mentions four cases of suspected fracture, or separation of the epiphysis, in persons aged respectively eleven, eighteen, sixteen, and fifteen; but he remarks that "at least one dissection is required to confirm the diagnosis in any of them."

Authors in surgery inform us that the fracture may be denticulated, or the fragments so dovetailed together, that they may not separate for some days; or we may have an impacted or partial fracture, especially in younger persons, in whom the animal constituents of the bone are abundant. The latter injury is more apt to occur when the force is received in or near the line of the axis.

This patient received the force of the fall or jump upon his feet, he did not fall upon his side. The neck of the bone at his age forms an obtuse angle with the shaft of about 135 degrees, so that the force was spent upon the neck rather in a longitudinal direction, than transversely. There was probably a partial fracture at first; but whatever the injury may have

been, repair did not follow as soon as might be expected in a patient of his age; on the contrary, it was followed by pathological changes which rendered the bone brittle and easily broken, as it was.

In the treatment of this fracture, as of all others, two principal indications are to be kept in view; viz., apposition and fixation.

By suspending the limb in Hodgen's splint, the extension is principally made by its own weight, the counter extension being made by the weight of the body.

We can thus secure a constant and equable extension, and the patient can be allowed some liberty of motion and change of position, lessening very materially the danger from bed sores.

The bandage was first applied about the pelvis, without the plaster, so that frequent observation could be readily made of the parts, lest erysipelatous inflammation might follow the injury after the several attempts at reduction.

The plaster dressing well applied will keep the joint quite immovable.

By the extension, and plaster dressing, the fragments were kept in apposition until bony union was complete.

THE PLASTER OF PARIS JACKET IN SPINAL DISEASES.

By Edmund Andrews, A. M., M. D.

[Prof. of Surgery in the Chicago Medical College.]

The repeated inquiries made by physicians respecting the use of plaster of Paris in constructing supporters for spinal disease, show a widely diffused interest in the subject. I have therefore prepared this article to answer the numerous questions addressed me from different sources.

The therapeutic principles involved in the use of the plaster of Paris jacket, are the same as for other spinal supporters, and may be stated as follows:

1. Pott's disease is an inflammation limited almost invariably to the bodies of the vertebræ, and not affecting the articular processes behind them.

2. Hence it is that the bodies only soften and yield to the compression of the vertebræ above, while the articular processes behind remain firm and unchanged, in consequence of which the spine bends at an angle or a short curve, with its concavity forward and its convexity backward.

3. Curative apparatus acts in three methods; viz., (a) as a splint to correct or arrest the deformity; (b) as a means of securing immobility; (c) as a lifting power to take off the weight resting on the diseased vertebræ.

Any firm, broad splint applied to the back may act favorably to prevent the further flexion, and to secure immobility. The action of the plaster of Paris jacket in this respect, like that of all other supporters, is too obvious to require explanation. There is, however, one curative element in the splint principle which is very generally overlooked. Inflammation of the vertebral bodies is usually kept up solely by mechanical irritation; that is to say, by the jarring, the rocking and the pressure of the vertebræ above pressed down by the entire weight of the superior portion of the body. If this mechanical irritation be taken off, almost all cases will recover from the inflammation spontaneously. Now let it be borne in mind that the articular processes are free from inflammation, and are located on a line considerably posterior to the bodies of the vertebræ. It is evident at a glance, therefore, that if any supporter is so constructed that by its splint power it shall flex the spine firmly backwards, it will throw the weight of the vertebræ upon the articular processes, and take it off from the inflamed bodies of the affected bones.

The direct lifting power of spinal supporters is often overestimated. In small children it amounts to almost nothing, because their hips are smaller than their waists, and there is no basis on which to rest a support for the lifting power. In adults, however, and especially in women, the expansion of the hips gives a counter support, and lifting becomes possible. It may be well to remark, just here, that the old attempt to

lift by pressure in the axillæ is abandoned by all good surgeons. The axillary plexus of nerves is intolerant of all continuous pressure. A lifting force applied there with sufficient vigor to accomplish anything, soon paralyzes the arms. In spite of this fact, however, the instrument sellers continue to vend, and physicians to buy absurd pieces of apparatus, even for young children with no expansion of the hips, pretending to lift by crutch pieces in the axillæ.

The only lifting power possible (except an occasional head-stretch), is by embracing the double cone of the waist in something resembling a corset, and this the plaster of Paris jacket accomplishes in cases of adults. The principle is simply this: The waist being the smallest part of the body, anything like a firm, well fitted corset, or the plaster jacket firmly laced on, tends strongly to crowd the cone of the hips downward, and the inverted cone of the rest of the body upward, thus making a decided extension on the middle of the spinal column. It is for this reason that firm corsets, well laced, are a comfort, and actually a benefit to women with incipient Pott's disease. The plaster of Paris jacket acts both as a corset and as a splint, thus fulfilling both indications, acting in that respect like the combination brace, which I have for years been in the habit of applying to cases of Pott's disease.

The most approved method of applying the plaster jacket, requires the following articles to be prepared:

1. A pair of pulleys to suspend the patient.

2. A suspension bar, or rather a sort of whippletree of steel or strong wood, suspended by the pulleys in the centre, and having two notches or hooks on each side, one five inches and one eight inches from the centre.

3. A sort of band or collar of soft stuffed leather to surround the base of the skull, capping the end of the chin in front and passing beneath the occiput behind. Straps pass up from this on each side to the suspension bar.

4. A pair of axillary pads or bands suspended from the centre notches of the suspension-bar.

5. A quantity of roller bandages of coarse cross-barred crinoline, whose meshes are rubbed full of good, dry, fresh plaster of Paris.

The patient is now slung up by the arm-pits so as to hang from the suspension-bar on the axillary bands. To give the spine itself a special extension, the head-sling is also applied and buckled up so as to sustain part of the weight of the body. The axillary bands should be connected together by cross straps, so that by no accident can the child slip down out of them, leaving the whole weight to come on the neck.

A common knit shirt should be on the patient's body, and the plaster of Paris bandages should have already been placed in warm water to soak. It is also well to place a strip of cotton wadding along the more prominent portion of the spine, to prevent pressure on subcutaneous points of bone.

Now commencing as low down as can be done without impeding flexion of the thighs, the bandages should be applied over the whole trunk as high as the axillæ, in several successive layers. Sometimes it is well to enclose in them a number of perpendicular strips of perforated tin to obtain additional strength. When the plaster sets, the whole will become one rigid stone jacket, holding the patient firmly in position. Strange to say, this petrified envelope does not generally embarrass the breathing, though I have seen one or two exceptions to the rule. Before applying the bandages, a compress of cotton batting is applied to the lower half of the abdomen, beneath the shirt. After the plaster is hardened, the compress is removed, thus furnishing space for abdominal respiratory movements.

The apparatus can be applied in less elaborate fashion if desired. Thus, instead of suspending the patient by pulleys, three assistants can hold him horizontally face downwards by the thighs, arms and head. In this position the weight of the body causes it to settle down in the centre, thus flexing the spine backward in a desirable manner. It is not absolutely necessary to use cross-barred crinoline, as any thin loose fabric will do. I have also seen very effective jackets applied by coating three layers of cotton flannel with wet plaster, wrapping them around the body, and confining them with an ordinary roller bandage. The patient is held meantime in a suitable position until the plaster sets.

Cases of lateral curvature can be treated by this apparatus with considerable efficiency, but its main use is for Pott's disease.

In answer to the often repeated question, what estimate should we put upon the usefulness of the plaster jacket, I would say as follows:

Like all other useful things, it has both advantages and disadvantages. The advantages are as follows:

1. Cheapness. It costs next to nothing for material, though it consumes considerable time on the part of the surgeon. The cheapness enables one to apply it to numerous cases where poverty prevents the parties from paying $25 to $40 for a regular supporter.

2. Ease of construction. Any well educated physician can apply it himself however remote he may be from instrument makers. This is a very material advantage, for in order to reach an instrument maker, many patients are obliged to travel hundreds of miles, because the attempt to construct an efficient spinal apparatus from measurements sent by mail without the personal presence of the patient, is almost always a miserable failure, and the expense of the trip is often greater by far than that of the apparatus.

3. Perfection of the fitting. The plaster being applied wet, molds itself perfectly to the form, so that a "good fit" is easily obtained.

4. Efficiency. Where the deformity is situated in the lumbar or lower dorsal region, the plaster jacket has a control over it fully equal to that of any appliance ever used.

The disadvantages are as follows:

1. The jacket cannot be often changed without involving an expense for the surgeon's labor, which would soon be far greater than that of a good supporter. Hence, while wearing it, the patient is deprived of the use of his baths, somewhat to the detriment of his health. Sweat, however, does not accumulate, owing to the absorbent power of the plaster, but considerable decomposing cuticular matter accretes on the skin which cannot be removed. To a certain extent the advantages of easy removal can be obtained by foregoing those which re-

sult from carrying the plaster entirely around the body. A carapace, or "turtle shell," as Sayre calls it, may be made by putting several thicknesses of cotton flannel and plaster, strengthened by strips of perforated tin, upon the posterior half of the body and binding it on by a roller bandage. When this has hardened it can be enveloped in a jacket of cloth fitted to the body and made to lace up in front, and can be removed for bathing purposes as often as desired. The plaster portion of the apparatus not being strengthened by continuity in front, must be made pretty thick and strong, but it often serves a very good purpose. This form of the jacket has merits, but yet it has fallen for the most part into disuse.

2. The plaster jacket, in its original form, is only applicable to deformities existing below the level of the border of the axilla. On Pott's disease above that level it has but little effect, as the jacket cannot effectively be carried any higher. However, by the help of a mechanic, steel splints like those of a regular spinal supporter can be imbedded in the plaster and carried up high enough to apply shoulder straps, or even a head-stretch, but this is not much easier nor very much cheaper in the long run, than a regular brace.

3. The plan of suspending part of the weight of the patient by the head, involves a danger if the surgeon is at all careless. All joints of the body are liable to congenital or acquired laxity of ligaments, and the upper cervical articulations are no exception. If the surgeon chanced to have one of these relaxed cases in his suspension-sling, and by any inadvertence of himself or of his assistants, should bring too strong a tension in the head-straps, the horrible accident of a dislocation of the neck might easily occur. Great care should be taken to guard against this possibility.

From these considerations, it is evident that the plaster of Paris jacket is a very valuable appliance in numerous cases, and has the especial merit of being an extempore apparatus which can be applied however remote the patient may be from instrument makers, and however impoverished he may be in purse. It has, however, some special disadvantages, and at its

best, is in no way superior to a well-fitted combination brace, containing the corset and the splint in one instrument. Indeed the superior convenience and tidiness of the combination brace will always cause it to be preferred by a large portion of surgeons and patients.

No. 6 Sixteenth St., Chicago.

CASE OF SPONTANEOUS GANGRENE.

By Abner Hard, M. D., Aurora, Ill.

[Extracts from a Paper read before the Fox River Valley Med. Asso'n, July 2d, 1877.]

Cases of spontaneous gangrene are not of frequent occurrence in country practice, though occasionally met with as a result of embolism, or disease of some of the arteries or veins. The case to which I call your attention at this time, seems to possess unusual interest, from the many members involved and the apparent absence of arterial disease. In the medical works to which I have had access, I have been unable to find a corresponding case.

April 30th, 1877, I was summoned to attend Miss M. N., aged sixteen, small in stature, but of bright intellect; not physically developed more than girls usually are at the age of twelve or thirteen years. She has never menstruated, nor exhibited other signs of sexual maturity. Her father is living and healthy; her mother died at the age of thirty-seven, of uterine tumor. She has been living in the family of her aunt, and attending school for two years, having been always considered very healthy. During the past winter, she has been troubled with an urticarial eruption, appearing and disappearing, accompanied with itching. It did not make her ill, nor cause any uneasiness in the minds of her friends. On the 17th of April, she complained of headache, and did not attend school on that, nor on the following day. April 19th, the rash reappeared, and she took a cold water bath. The rash at once disappeared, and she felt sick and faint, but returned to school.

It reappeared each evening, until April 26th, when the ends of her fingers and toes became swollen, purple and painful. She came to Aurora and consulted a homœopathic practitioner, who called it "erratic erysipelas," and prescribed for her. She returned to school, but grew worse, and on Saturday, April 28th, Dr. Hawley, of Aurora, was called, and prescribed. She had no other medical attendance until my arrival, April 30th. I found her suffering excruciating pain in both hands and feet, which were black and swollen. The black color extended to the middle of the hands and feet, from which it shaded off into red, and then to the natural color. The extremities of the fingers and toes were senseless; but no line distinguished the dead from the living tissues. Except for a short distance from the ends of the extremities, the integument only was involved. A needle thrust into the tissues, beneath the skin, would give pain. She was very restless, and had not slept for several days. Pulse 120 per minute, and very distinct, with natural fullness. Heart-sounds not quite natural, but without irregularity. There was a peculiar double click to the first sound, while the second was natural. Tongue coated; bowels rather constipated; urine less abundant than usual, with a trace of sugar.

I prescribed one-fourth of a grain of morphine every three hours, to be given at short intervals if necessary. Quinia grs. iii; tr. ferri chlo., gtt. xv. every four hours; also fl. ex. digitalis, one minim every four hours. Feet and hands to be kept fomented with carbolic acid water, three grains of acid to the ounce of water. May 1st, I found my patient had rested pretty well, although when the morphine had been omitted, the pain returned. No other changes in the symptoms. Ordered a laxative and treatment continued. May 4th, bowels had moved properly, but the other symptoms were aggravated. Anodynes had not been continued. Pulse 130; heart-sounds about the same as at last visit, and the discoloration had extended. Prescribed tr. cinchonæ comp., and tr. gentian. in equal parts; a teaspoonful every four hours, in place of quinine. Fl. ext. digitalis, three drops every four hours. Continue iron and give morphine regularly to

relieve pain. As the case progressed, I found as I increased the digitalis, the heart-sounds improved as well as the other symptoms, until the pulse decreased in frequency to (or below) 80 beats per minute, when its action became irregular, and the symptoms were worse. When the pulse was allowed to rise above 110, the patient was in a less favorable condition. She invariably improved when the pulse was kept between 80 and 100 per minute. The patient was brought to Aurora, May 21st, and upon May 25th, the line of separation being complete, in presence of Drs. Robbins, Groat, Higgins, Howell and Elliott, I amputated the toes and heads of all the metatarsal bones of the right, and all the toes, except the fifth of the left foot. May 28th, I amputated all the fingers, except the index finger of the right hand, and, June 19th, I completed the amputations by removing the thumb and index finger of the right hand, leaving, however, stumps of all the fingers (but one), which may become quite useful. The amputations were performed under the influence of ether, by completing with the knife the line of demarcation formed by nature; pressing back the granulating flesh, and cutting off the bone, except where the separation occurred at a joint, in which case I disarticulated. In no case was any living tissue removed, and the stumps were allowed to heal by granulation. The parts removed were mummified, and hard as bone. One of the fingers I here present for your examination.

The dressings for a few days after amputation, consisted of carbolic acid lotion applied daily, and an ointment composed of one drachm of boracic acid to the ounce of cerate, spread on strips of old cotton or linen cloth. Following the first amputations, the nose and ears became discolored, swollen, and painful, having the appearance presented by the fingers and toes, in the early stage of the disease, previous to my being called, and I feared they also would become gangrenous. But as the effects of the ether passed off, and the pulse beats numbered less than 100, the natural color, and condition of the parts were restored. The same condition of the nose and ears followed each succeeding amputation.

The case has progressed favorably under the persistent use

of digitalis, and tonics, without the necessity of anodynes, to the present time, June 30th; the stumps being nearly all healed, and the patient gaining in appetite, flesh, strength, and spirits. Upon reviewing the case, I am led to the conclusion that the cause of the disease must be attributed to the central organ of circulation, the heart, as I could find no lesion to account for it; and the further fact, that when from any cause, either the omission or too free use of digitalis, or an increased action of the heart from the administration of ether, or the shock of amputation, the circulation was much disturbed, the pain, swelling, and tendency of the gangrene to spread, or new parts to become involved, was apparent. It will be observed that the parts affected were those most distant from the heart, and possessed of the weakest circulation: viz, the fingers, toes, ears and nose.

P. S.—Aug. 1, 1877. Since the above was reported, the patient has continued to improve, with no symptoms of a return of the disease. All the stumps have healed, and are well formed, and she walks, and feeds herself. The abnormal condition of the heart remains, though greatly improved. She still continues to take the preparations of digitalis, bark and gentian.

CASE OF TWISTED PEDICLE. OVARIOTOMY.

By R. Stansbury Sutton, A.M.,M.D., Pittsburgh, Pa.

On the morning of August 14, 1877, I was requested by Mr. B. to see his wife. He said, "She is very large and has dropsy." Proceeding to the house with my aspirator, I found a lady, aged 31 years, lying in bed on her right side, and in great distress. Her respirations were short, purely pectoral and 40 to the minute. Her pulse was 136, tongue red and dry. She was pale, and the expression of her face anxious. Her legs were not œdematous. It was impossible for her to lie either upon the back or left side. Her abdomen was immense; above a line drawn obliquely from the middle of the left lumbar to the centre of the right hypochondriac region, she

was tympanitic; below this line dullness in percussion was general and fluctuation distinct. She was not tender to firm pressure made at all points. From the husband I learned that she had been very large for at least two years, and that he had married her one year before, not suspecting any special cause for her unusually full abdomen; that she had become pregnant, and that just ten days before, she had miscarried a six months fœtus weighing about two lbs. From the nurse, an intelligent woman of ample experience, I learned that, on the fourth day after this, she had complained of thirst and become feverish. No evidence of metritis or pelvic cellulitis was present, and I concluded that I had to deal with an ovarian cyst, the pedicle of which had become twisted, and that commencing gangrene of the cyst was setting up peritonitis. I gave this opinion to the husband with a grave prognosis; in the event of leaving her alone that death would follow in a very few hours; in the event of resorting to treatment that but little hope of saving her life could be entertained, but that such a course gave the only chance of hope. The young wife begged for the latter course, and the husband and father of the patient assented. To gain time, and to relieve the extreme urgency of the symptoms, I thrust into the cyst an aspirating needle, and drew off twelve pints of a dark chocolate-colored fluid, which I found rich in albumen, containing the compound granular cell, all of which confirmed my diagnosis of the character of the cyst. I ordered her stimulants and animal broth with citrate of lithia, and left the house. Returning to my office I gathered my instruments together, and taking with me Drs. McCann and Lemoyne, I returned to my patient at 4 P. M. We found her respiration improved, 24 to the minute, her pulse 132. Her measurements were as follows: Around the abdomen at umbilicus, 46 inches; two inches below, 46 inches; from umbilicus to right supra-spinous process of ilium, 12½ inches; from the same to the left, 12½ inches; from ensiform cartilage to umbilicus, 9½ inches; from umbilicus to pubis, 10½ inches. My friends both examined her carefully, and coincided with me in the diagnosis, and in the opinion given as to treatment. Her husband had gone to the city on

some urgent business, and would not return until too late to operate by daylight. Not feeling satisfied with his absence, and being certain that she was getting into better condition as to respiration and circulation, we agreed to postpone operating until 8 A. M. of the next morning.

In addition to what she was taking, we gave her small doses of morphia during the night.

Aug. 15, 8 A. M. Present, Drs. McCann and Lemoyne. Pulse 132. Temperature 100½. Has slept about three hours during the night, and says she feels better than she did yesterday. Assisted by Drs. McC. and L., I performed ovariotomy, removing 27 pints of fluid and a cyst with a large solid portion, globular in form, weighing three and a half lbs.; making with the fluid drawn yesterday 39 pints (weighing 39 lbs.) all added to the weight of the cyst and solid contents, 42½ lbs.

The adhesions were all recent, and omental general peritonitis was present, the omentum being very red, and at least four inches square of its surface peeled off from the cyst as it was drawn out. On the right side, several patches of peritoneum were congested and red. The abdominal wound was about five inches in length, and was made with carbolized instruments; no ligatures were required, and during the entire operation not over an ounce of blood was lost to the patient. The pedicle was twisted one-half revolution only. It was broad, of medium length, and was to the left of the uterus. It was tied with carbolized silk, the knots cut short, and the cyst was cut away an inch above, and just below the solid growth alluded to, in the bottom of the cyst. The abdomen was carefully cleaned out with warm carbolized water, and carefully prepared sponges of the finest texture. The wound was closed with silver wire sutures, including the peritoneum. A few straps of adhesive plaster, some layers of carbolized lint, a thin layer of cotton wool and a broad bandage completed the dressing. Some brandy was now given, and the patient put to bed with a jug of hot water to her feet, and a blanket over her. She slept for two hours. At 1:30 P. M. her pulse was 132. Temperature 99⅘. Has had no nausea, and taken a few spoonsful of milk and lime water and some brandy. At 3 P. M.

took some citrate of lithia in solution, also a little milk. At 4 P. M. took some brandy, and passed water voluntarily. At 5 P. M. pulse 144. Temperature 99⅞. An injection, consisting of five grains of quinine, ten drops of tincture of opium, and two ounces of milk, to be thrown into the rectum every four hours. A tablespoonful of iced milk to be given by the mouth as often as the patient desires liquid. A tablespoonful of brandy to be given by the mouth every four hours. No pain is complained of, but the patient expresses herself as comfortable.

8 A. M. Aug. 16. Twenty-four hours since we met to operate yesterday morning. The nurse reports that the patient was very quiet all night, and frequently passed gas from the bowel. She is yet very tympanitic, pulse 140, temperature 101¾. Has taken during the night considerable milk. Requests beef tea this morning. To the rectal injections I ordered added a tablespoonful of whisky every two hours. The gas to be drawn from the rectum with a large male catheter each time before the injection is given. By the mouth, to take a tablespoonful of whisky and two ounces of beef broth every two hours.

4 P. M. Dr. Lemoyne present by my invitation. Pulse 135, temperature 101⅘. Expression of countenance better than in the morning; tongue dry. Has no pain. No pouching of Douglas' cul-de-sac. Kidneys acting well, urine clear. No catheter required. Treatment continued.

10 P. M. Pulse 136, temperature 100¾. Aug. 17, 9 A. M. Pulse 160, respiration rapid, temperature 95. 10:12 A. M. Died without a struggle.

The nurse reports that she slept from 10 P. M. until a few minutes of 1 o'clock A. M. After waking, took some beef broth and brandy, but was restless until 3 A. M., when she observed her sinking rapidly. Thirty minutes before she died she took with her own hand and drank a glass of whisky and water. Death occurred from shock. No autopsy was granted.

The following fact in the microscopical character of the fluid is important. It contained, in addition to the elements men-

tioned, a very large proportion of blood corpuscles. Hemorrhage into the cyst had been considerable. The arteries of the rotated pedicle still let in the blood, which the veins were incapable of returning.

The appearance of the cyst, when viewed through the abdominal incision, was as follows: Its color was changed to a dark red hue, showing active inflammation over a large surface; to this the omentum was attached by recent adhesions; along the border of this inflamed surface gangrenous lines were well defined. After removal, an examination of the cyst proved that it was rapidly becoming gangrenous throughout. The large solid mass in the bottom of the cyst was laid open, at its equator, with a knife, and was found to be full of cavities, from the size of a filbert to the size of a walnut; all of these cavities were filled with pus. The weight of the cyst and solid lump was 3½ lbs. The weight of the fluid 39 lbs, making 42½ lbs.

It is my opinion that had the condition been recognized three or four days earlier, the operation would have been more likely to have saved her. Or had ovariotomy been performed during pregnancy, still a better prospect would have been afforded her.

Clinical Reports.

ST. LUKE'S HOSPITAL.

Service of Jno. E. Owens, M. D.,

[Prof. Surgery, Woman's Med. College ; Lecturer on Surg., Rush Med. College, etc.]

Lacerated Wound of Fore-arm; Tetanus; Treatment by Calabar Bean; Sketching of Brachial Plexus; Death.

Reports of cases of traumatic tetanus, *successfully* treated by one method or another, are so numerous in current medical literature, that to judge from such reports alone, one must conclude that the treatment of the disease in question is tolerably satisfactory. I therefore publish this unsuccessful case, since it is only by a study of the successful and unsuccessful that a proper estimate can be placed upon this or that mode of management.

Aug. 29, 1877, a little boy, aged six and a half years, was injured by a passing freight train. I saw the case a short time after the injury, with Dr. G. M. Chamberlin, who was already in attendance. The integument, with little or no loss of substance, had been torn from the front of the right forearm. The laceration extended to the palm of the hand, and involved, to some extent, the base of the thumb. The temporary dressings were saturated with blood, the arm and hand being warm. We placed in apposition the margins of the lacerated integuments, except for two or three inches at the wrist, and introduced the requisite number of sutures.

The following day, Aug. 30, the patient was admitted to the hospital. The arm was dressed with a warm solution of carbolic acid. On the third day, however, the skin showed signs of mortification, which extended, until all of the lacerated skin and that of the fingers and the back of the hand became involved. The integument of the fingers and dorsum of the hand furnished no evidence of injury when first seen.

The patient had several attacks of "night terrors" in the hospital; but his father reported that he was subject to these previous to the injury.

The fifth day, the resident began to remove the dead integument, small portions still remaining on the palm of the hand and on the back of the wrist on the tenth day. The case, however, in other respects progressed very favorably. The patient ate and slept well, except the occasional disturbance above referred to, until the morning of Sept. 8th, when Dr. Brown, the resident, reported that the patient cried out at certain intervals from pain in the arm, induced by spasm. Upon attempting to place the thermometer under the tongue, it was found that the jaws were so rigid that the instrument could not be safely used. Jaws could be opened a quarter of an inch.

TEMPERATURE AND PULSE RECORD.

	Temperature.		Pulse.	
	A. M.	P. M.	A. M.	P. M.
Aug. 31,	-	103°	-	- 136

		Temperature. A. M.		P. M.		Pulse. A. M.		P. M.
Sept.	1,	$100\frac{4}{5}$	-	$101\frac{3}{5}$	-	112	-	128
"	2,	$100\frac{1}{5}$	-	$100\frac{3}{5}$	-	118	-	120
"	3,	100	-	$100\frac{1}{5}$	-	118	-	130
"	4,	$99\frac{4}{5}$	-	101	-	122	-	140
"	5,	$100\frac{1}{3}$	-	$101\frac{1}{3}$	-	118	-	130
"	6,	$100\frac{1}{3}$	-	101	-	124	-	136
"	7,	$100\frac{2}{3}$	-	$101\frac{1}{3}$	-	122	-	136
"	8,		-		-	118	-	

The resident had prescribed the following:

℞ Potas. bromid. - - - ʒ v.
Morphia sulph. - - - gr. $\frac{1}{4}$.
Aquæ - - - - - ℥ ii. M.

S. Teaspoonful every 2 hrs.

Upon reaching the hospital, I found the patient asleep. In the afternoon the jaws had relaxed somewhat. The arm was enveloped in warm poultices.

Sept. 9.—Patient could open mouth three-quarters of an inch, and was free from pain, except when the arm was disturbed by spasm of its muscles. Treatment continued. At noon it was reported that the patient had slept the greater part of the morning, but the spasms of the arm had become more frequent, the interval ranging, for a time, from three to five minutes. The muscles of the neck were rigid and the head bent back. The patient complained of his throat, and refused to swallow his medicine.

At 2:30 P. M. there supervened a violent spasm of the muscles of the jaws, neck and trunk, opisthotonos being so great that the vertex was buried in the pillow. In a half hour the jaws could be separated three quarters of an inch, the patient was perspiring profusely, and the face flushed. The opisthotonos and rigidity of the affected muscles remained. Three seizures occurred within ten minutes.

3:45 P. M. Ordered subcutaneous injection of morphia, $\frac{1}{8}$ gr.

At 3:57 P. M., whilst sleeping, he had another opisthotonic seizure, of momentary duration, which awoke him. He gave a cry of distress and dropped off to sleep again.

6 P. M. Opisthotonos pronounced, paroxysms frequent and severe; rigidity constant.

6:45 P. M. Morphia and bromide of potash discontinued; Squibb's alcoholic extract of Calabar bean, gr. $\frac{1}{11}$ substituted.

7 P. M. Calabar bean, gr. $\frac{1}{11}$.

7:15 P.M. " " "

7:30 P.M. " " " by hypodermic injection.

The frequency of the paroxysms became notably diminished, recurring at intervals, varying from five to fifteen. This improvement was temporary, for in an hour the intervals ranged from three to five minutes.

8:45 P.M. Calabar bean, gr. $\frac{1}{11}$, by hypodermic injection.

10:30 P.M. " " " " "

Sept. 10th.—12:30 A.M. Calabar bean, gr. $\frac{1}{11}$; pulse 120; respirations 26; result of medication since 8:45 P. M., Sept. 9th, negative.

1:15 A.M., Calabar bean, gr. $\frac{1}{11}$.

1:30 A.M. " "

2:00 A.M. " "

2:15 A.M. " "

2:30 A.M. " "

3:15 A.M. " "

3:30 A.M. " "

4:00 A.M. " "

4:15 A.M. " "

4:45 A.M. " "

A new solution of Calabar bean, prepared at 5 A.M., each drachm of which contained gr. $\frac{1}{7}$.

5:00 A.M., Calabar bean, gr. $\frac{1}{7}$th.

5:45 A.M., " " "

6:30 A.M., " " gr. $\frac{2}{7}$th.

7:05 A.M., " " gr. $\frac{1}{11}$th, hypodermic injection.

8:15 A.M., " " " $\frac{2}{7}$th

9:20 A.M., " " " paroxysms very short and less severe.

9:45 A.M., " " gr. $\frac{1}{7}$th.

11:15 A.M., " " " $\frac{2}{7}$th.

12:15 P.M., " " " $\frac{2}{7}$th; paroxysms recurred at in-

tervals, varying from three to five minutes, but they were very light, amounting only to a momentary contraction of the muscles.

1:30 P.M. Calabar bean, gr. $\frac{2}{7}$th; pulse 144; respirations 28, and superficial.

2:30 P.M. Calabar bean, gr. $\frac{2}{7}$th. As it was apparent that the case was rapidly approaching a fatal termination, under medical treatment, at 4:30 P.M., assisted by Drs. S. J. Jones, Chamberlin and Richy, I cut down upon and stretched the brachial plexus.

An incision, two inches in length, and terminating below at the clavicle, was made, parallel to the anterior margin of the trapezius muscle, in the space between the latter and the external jugular vein. By deeper incisions through the superficial fascia, the platysma, and some cellular tissue and fat, the plexus was exposed in the triangle formed by the posterior belly of the omohyoid, the trapezius and the levator anguli scapulæ muscles. The sheath, to all appearances normal, was slit up as far as the intervertebral foramina. The plexus having then been lifted from the sheath by means of an aneurism needle, the flexed index finger was substituted for the needle and traction exerted upon both the central and peripheral portions. The wound was then washed with carbolic lotion, and closed by interrupted suture, except at its most dependent part, in which a small tent was placed. For a half hour after the operation, the patient's condition seemed to have improved. The convulsive seizures ceased, the opisthotonos subsided, the patient resting the back of the head instead of the vertex on the pillow, but a certain degree of rigidity of the cervical and other muscles remained. The patient was able to separate the jaws three quarters of inch. This apparent improvement, due, in my opinion, to ether, soon passed away, after which the convulsive attacks were more violent than they had ever been.

7:30 P.M. Aqueous ext. Calabar bean, $\frac{2}{5}$ gr. (hypodermic).

7:45 P.M. Calabar bean, (hypodermic) gr. $\frac{1}{2}$.

8 P.M. The paroxysms were so severe, that I asked the resident to give the patient a few inhalations of chloroform.

Already somewhat under the influence of Calabar bean, the patient ceased to breathe after he had inhaled a very small quantity of chloroform. By drawing the tongue forward and continuing artificial respiration for a few minutes, respiration became re-established.

8:15 P.M. Another spasm; Calabar bean, ½ gr. (hypodermic).

9:00 P.M. Calabar bean, gr. ½ (hypodermic).

9:30 P.M. " " " "

10:00 P.M. " " " (hypodermic); great thirst, but the patient instantly regurgitates any fluid that he attempts to swallow.

10:30 P.M. No abatement of the spasms; increased thirst.

11 P.M. Calabar bean, gr. ½; patient insensible to the introduction of the needle of the hypodermic syringe.

11:30 P.M. Calabar bean, gr. ½; pulse 170.

12:00, midnight. Calabar bean, gr. ½; patient still conscious.

Sept. 11th— 12:45 A.M. Calabar bean, gr. ½; paroxysms less severe.

1:30 A.M. Calabar bean, gr. ½; hurried respirations.

2:15 A.M. Calabar bean, gr. ½.

3:00 A.M. Asleep; pulse 180.

4:00 A.M. Great suffering; inhaled ether more or less till 5 A.M.

6:00 A.M. Extreme thirst; inability to swallow; pulse 180; respiration 48.

7:00 A.M. Pulse 180; respiration 48; lips cyanosed; pupils strongly contracted.

7:45 A.M. Died.

TEMPERATURE AFTER DEATH.

7:55 A.M., - - 105°	9:00 A.M., - - 99⅘°
8:15 A.M., - - 104⅗	9:30 A.M., - 97⅓
8:30 A.M., - - 102	

NOTES FROM PRIVATE PRACTICE.

Sulphate of Cinchonidia as an Anti-periodic.

Any information which will tend to lessen a physician's expenditure for drugs, will, I take it, be thankfully received, especially in times such as these. I have recently noticed two or three articles with reference to substituting sulphate of cinchonidia for sulphate of quinia, the writers claiming that the cheaper drug fulfilled every indication met by quinine. I know that many physicians are not aware of this fact, and wish to add my testimony to that already given. I find that in malarial fevers of whatever type, the cinchonidia salt has proved just as certainly a specific, as the salt of quinia. Having had a large number of cases of this class, treated almost entirely with the drug in question, I have learned to place just as much confidence in it as I have had in quinine, and with equal confidence predict a favorable result. It has not failed in a single instance to prevent the next paroxysm in a tertian and the next but one, sometimes the next in a quotidian ague, and is equally efficacious in remittent fever, being well borne by the stomach, and not producing any of the unpleasant head symptoms which so certainly follow large doses of quinine. I administer it in five grain doses, either in pill or powder as the patient desires, every four hours, day and night, without any reference to paroxysm, intermission, remission or exacerbation, until the patient has passed safely through the "chill day," in a tertian ague, and through two days without chills in quotidian; then continue in smaller doses, say two grains after or before each meal. Considering the fact that quinine is sold at nearly four dollars per ounce and sulphate of cinchonidia at only eighty cents, every physician should be acquainted with the above facts. It will be seen that it only requires about a drachm (or ten cents worth) of the drug to completely control the disease.

Warren Co., Illinois. H. L. Harrington.

Ingrowing Toe-nail.

Among the various methods for treating ingrowing toe-nail, excepting when the toe is greatly inflamed, so as to necessitate removal of a portion of the nail, none has proved so satisfactory to me as the following:

The nail should be allowed to grow long—from three-sixteenths to one-fourth of an inch—on the affected side of the toe. The side of the nail should *not* be pared, but the hardened integuments should be removed from beneath its edge after soaking the toe in warm water. This being accomplished, a narrow strip of adhesive plaster should be slipped under the corner of the nail—adhesive side downward—and drawn firmly over the flesh which has been pressed up beside the edge of the nail, and fastened by both ends beneath the toe. This simple dressing can be renewed as often as necessary by the patient. As the length of the nail carries the corner beyond the toe, it cannot irritate the flesh and the pressure of the shoe upon the end of the nail tends to elevate its sides.

The plaster elevates the ingrowing portion of the nail and protects the tissue which had been irritated by it.

If, in addition to this treatment, the patient will discard tight shoes, he will be rewarded by a speedy and permanent cure.

Paring the side of the nail gives temporary relief, but insures the return of the trouble by leaving an irregular edge, and a sharp corner at the matrix, which must irritate as the nail grows.

Scraping the middle of the nail, and placing a little roll of cotton beneath its edge, if properly done, will sometimes give relief; but it seldom effects a cure.

Removal of a portion of the nail is painful and generally unnecessary. I have seen cases of long duration, in some of which suppuration had existed several months, speedily cured by the method here recommended, after all ordinary methods —save ablation—had been faithfully but unsuccessfully employed.

188 Clark St., Chicago. E. F. Ingals.

Medicinal Condiments.

The sodium-chloride which is found in all the tissues and fluids of the body, is so essential to osmosis and therefore to life, that it is taken into the body, in part at least, in the form of a pure chemical. What table is without its *salière?* The broil, the roast and the fry, the soup, the stew and the salad, are worse than useless without the addition of salt. A few years ago it was evident that my blood was not manufacturing normal hæmatin, and with a physician's dislike for medicine I became a subject of spanæmia. Confident there was something wrong with my assimilative powers, I sought for a remedy. The tincture of iron and the "elegant" elixir did not suit my taste, and therefore I put into my salt-cellar an equal quantity of sodium-chloride and Quevenne's iron. This compound, alimentary and tonic, was sprinkled upon my beefsteak and into my soup, and in brief time the improvement in my condition was pronounced. Not only sodium-chloride with iron, but other of the proximate principles—potash, magnesia, soda, lime, chlorides, phosphates, carbonates, etc.,—might be similarly employed. These, in varying quantities, combined with pharmaceutical exactness, and the proportion determined by the physician's knowledge of the particular constituents lacking in the disease or condition in question, might find their place, not in the vial, but in the *salt-cellar* to be used like pepper and salt with the food. Sometimes the fluids, sometimes the solids of the body suffer; now the bones, then the muscles, and the nervous tissues. These various indications may be at least approximately met by combinations of certain of the elementary substances of which the body is composed, administered in the form of *a condiment.*[1] Such a condiment may be prepared by thorough trituration to meet the conditions of a weakened digestion, for trituration adds much to the assimilability of a medicament. Such medicines (*food*) are most easily digested when the stomach, excited to secretion by the anticipation or presence of food, is ready to receive and dispose of them. It will be ob-

1 I do not claim that this is better than other modes, but that it meets certain individual caprices and idiosyncrasies.

served that I have conformed to common usage in the use of the word "medicine." Strictly speaking, iron and common salt are not medicines. They are related to physiology, not to pathology.

James I. Tucker, M. D.

Reviews and Book Notices.

Transactions of the Twenty-seventh Anniversary Meeting of the Illinois State Medical Society, Held in the City of Chicago, May 15, 16, and 17, 1877. Chicago: *A. S. Kissell & Co.*

At the last meeting of The Association of American Medical Editors, Dr. H. C. Wood, in his presidential address, threw out the suggestion that medical societies should abandon the publication of their transactions in volumes. "In these books," he said, "a few kernels of wheat are so buried under an enormous heap of chaff, that they are often entirely lost to the profession. The societies should select some medical periodical, and publish in it the essential part of the proceedings and the meritorious papers. Thus incorporated in a medical journal, the transactions would reach a larger circle of readers, and present in a concise form more wheat and less chaff."

He who has read the last transactions of the Ill. State Med. Society, will heartily wish that Dr. Wood's proposition had been adopted by it; for he finds that he has waded through 250 pages, when a pamphlet, one-fourth smaller, could contain all that is worth printing.

The bulk of the transactions is made up of the reports of the standing committees. The by-laws charge these committees with the duty of preparing an annual report on the important improvements and discoveries in their respective departments. These reports should be brief and concise, in order to be intelligible and interesting; but, in the first place, they should be written by men who command the literary means to collect the necessary material, and possess the time

and mental capacity requisite to reduce it to proper form in writing.

If, in the selection of the committees, these conditions are lost sight of, the result is most disastrous. The report is either an *abortion*, such as the present *Report on Practical Medicine*, or a *monster*, such as the *Report on Drugs and Medicines*.

The latter is the most insignificant of all the results which are supposed to be aimed at in a committee report. It comprises sixteen pages in all, and nine of these are filled with phraseology, the profound wisdom of which will best be displayed by a few quotations. On page 105 the reporter startles the reader with the announcement that "the discovery of oxygen by Priestly, in 1772, was a grand era in chemistry;" and on page 106, he continues with this metaphorical effusion: "This element (the oxygen) is the key in the arch of nature's combinations, and its discovery led to the analysis of many mysterious conditions, as it seemed the combining link, the lever which opened the seal of secrecy, the cypher by which many things unexplained could be wrought out and made plain. It was the opening wedge to future investigation, as the key of explanation had been found." What a nondescript we have presented to us in that which is at once a *link*, a *wedge*, a *lever* and a *key!*

This compound of nonsense and bombast is followed by three pages of abstracts from the *Journal of Davis and Leonard, an advertising sheet, published for the benefit of Parke, Davis & Co., of Detroit!* To appropriately crown his wonderful work, the writer concludes with a terrible tirade against the introduction into pharmacy of the metrical weights. He objects on account of the —— orthography! Certainly *he* does not seem to be on very good terms with it. One might even conclude that the doctor confesses that tailors and grocers know more about it than he himself; for on page 118 he says, "This metric system will be appropriate for tailors and machinists, where length and breadth are to be estimated; or for lawyers in charging for briefs (*sic!*) it would be excellent for *grocers*, *green*-grocers, to weigh by, but not for druggists or physicians, where life is the issue!"

To use the doctor's own language (p. 117), "it is impossible to register all this rubbish;" but the signature he writes under one prescription is too good to be lost to posterity. Perhaps it is "the *link*, the *wedge*, the *key*, the *lever*" to elevate us to the mystical heights of the writer's ideas on the metrical system. It reads thus (page 117): "M. Sigda 1 metri spoonful. 50 deci-hora."

And such doubled-distilled absurdities are permitted to be read, yea to be published, as a report of a standing committee of a State Medical Society!

It is a great relief, indeed to find in the *Report on Surgery*, common sense, plain, unvarnished language and intelligible criticism. The paper, however, though good, is not a committee report. The author could, just as well, have presented it as a volunteer essay. It records a number of interesting cases, each of which involves a question of highly practical importance. A successful reduction of a femur which had been dislocated eleven weeks, gives the doctor an occasion to encourage the attempt at reduction in old dislocations. "I am of the opinion, it is our duty to undertake the reduction of dislocations generally, after a longer period has elapsed than what is laid down by authors as justifiable. With the exercise of ordinary judgment and common sense, no harm can follow from the attempt, and much good may result."

In dressing an injured elbow joint, when impairment of motion is liable to result, the reporter advises not to adhere to any fixed rule as to the position of the limb; but to bandage the arm in that position (either flexed or straight) in which it will, if anchylosed, be of the best use considering the patient's avocation.

Esmarch's bandage, the reporter thinks, has been generally adopted, perhaps "without duly considering the possible hazards attending upon it." He fears that death of the tissues must be the result of even a short interruption of the circulation; and in corroboration of his view, he reports a case of "gangrene and death resulting from the use of Esmarch's bandage." The patient, a young man, had a true anchylosis of

the knee joint with the leg flexed well back on the thigh. "The patient was put under the influence of chloroform, and I applied Esmarch's bandage, and, in order to the better secure the femoral artery, I carried the bandage up to Scarpa's triangle, and applied the rubber cord at the proper place for compressing the femoral artery with a tourniquet." A V-shaped piece of bone was removed, of sufficient size to allow the straightening of the leg. The bones were wired on each side; the flesh-wound, except at the angles, closed by silver sutures, and the limb laid on a Liston splint. On the third day after this operation the record reads: "Still doing well, pulse 89. Up to this time patient had not complained of pain, had no fever, and everything so far as I could discover, indicated a speedy recovery." Next morning the patient became delirious; his foot was found cold and black; and the leg, to within four inches of the wound, was discolored and blistered. Amputation above the knee revealed the fact that "all the adipose tissue, from the skin to the muscle, was gangrenous, and a greenish fluid was escaping from its surface." A re-amputation of the thigh at the upper third, gave a healthy stump; but three days later the patient was dead. The reporter's theory of the cause of death is this: Esmarch's bandage caused a paralysis of the limb, and disturbed the nutrition of the tissues so thoroughly that gangrene ensued.

We fail to note the force of this logic, and are rather inclined to see in this case the result of an undetected phlegmonous inflammation with ultimate septicæmia. If the use of Esmarch's bandage had made such profound impression on the innervation and nutrition of the limb as to result in gangrene, then we are at a loss to account for the apparent well-doing of the limb during the first three days; nor can we understand how "*the wound had all healed by first intention*" (as the examination of the amputated limb showed), while mortification was going on in the same tissues. To draw any positive conclusions from a case reported in such a manner as this, seems hardly warrantable in view of the fact that Esmarch himself, as well as others, fully appreciating the danger of suspended circulation have, by a series of careful experiments,

determined the length of time during which the limb may be deprived of its nutritive fluid with impunity.

The *report on Idiocy* has one great merit—it is very brief.

The *report on Electro-Therapeutics* can be commended to the chairmen of other committees, as a sample of what a summary report should be. It is clear, complete, and interesting.

The *report on Diseases of Children* has, by some mysterious transformation, been changed to a statistical report of the last scarlatina epidemic in Chicago. We are informed that this epidemic was not so terrible as one would naturally have supposed, after all the hue and cry that it created in this community, about one year ago.

The *report on Otology* consists of remarks on aural inflammations, and contains nothing but what can be found in a better and more complete form, in the standard works on Diseases of the Ear.

When the reports of committees are to be allowed to degenerate in so pitiful a manner as that exhibited in the several reports of the volume before us—it is time for a society to think of remodeling the working plan of its meetings. And the committee which was appointed for that purpose by the last convention, should earnestly weigh the question whether the Illinois State Medical Society would not fare better by abolishing the committee reports and depending solely on volunteer papers for scientific pabulum. We do not admire the system of constrained labor anywhere, and we further believe that when applied to literary efforts, it becomes a nuisance. Put a physician who has never had any ambition for writing essays, at the head of a standing committee, and he feels himself constrained to show "his appreciation of the honor conferred upon him;" he will go into labor and deliver himself of a few pages of grammatical blunders and general absurdities, dished up under the guise of a committee report.

Let those men come to the front who really have something to say; who desire to communicate some new observations, and to impart the result of original researches to their colleagues.

The transactions contain several very creditable essays of this kind; e. g., the paper on "An Improved Method of Performing the Radical Operation in Empyema," by E. F. Ingals, (published in the June number of the JOURNAL AND EXAMINER); the observations on "Apocynum Cannabinum," by Dr. Ransom; a very interesting review of the latest researches on the "Trophic Action of the Nervous System," by Dr. J. S. Jewell; the observations on phimosis as the cause of grave neuroses in children, by J. P. Matthews; the description of a simple apparatus for the treatment by extension of chronic inflammation of the ankle joint, by Dr. E. Andrews. These are contributions in the right direction. They exhibit original ideas, present novel features, and open a field for scientific discussion.

Printed in the same volume with such essays, how insignificant and needless do some other volunteer papers appear. We are really tempted to ask who is to be benefited by such papers as that on "Inflammation of the Middle Ear," which does not nearly compare with the corresponding chapter in Roosa's text-book; or that on "Canthotomy and Some of its Advantages," a paper which contains nothing new. The paper on "Iritis and Some of its Dangers," also disappointed us. We expected to learn here of some hitherto unobserved dangers, but found the whole substance of the paper dwindle down to the observation that an iritis, if neglected or improperly treated, is apt to impair or destroy the sight by occlusion of the pupil. Why must this be told to the members of a medical society in 1877, when it has been an undisputed fact ever since a knowledge was gained of the diseases of the eye?

A prominent feature of the transactions of the Ill. State Med. Society has always been the abundance of typographical errors. And the committee on publication has done its best to preserve in the present volume, the characteristic feature of its predecessors. Besides scores of minor errors (such as *diptheria*, *fœted*, *sulphites* and *ehildren*) we notice a number of others which reflect severely either on the care or on the orthography of the proof-readers. From a large collection we select the

following specimens: Page 17, *empyemia* and *empyœmia*; on the same page *Richards* for Richey; p. 58, *Accasia;* p. 60, ferri *murius;* p. 76, *femural*, and *Sharpie's* triangle for Scarpa's; p. 82, *intusseption;* p. 107, *Eccrasceur;* p. 112, *habit* for habitat; p. 115, vis medicatrix *natura;* p. 128, ceteris *parabus*. The headings of pages 175, 177 and 179 bear the legend, "Hygienics of Children on Phimosis"! to say nothing of the hieroglyphics intended to represent the formulæ for prescriptions. In every one of these prescriptions some drugs are named in English and others in Latin terms, with a bold defiance of grammar that is truly sublime.[1]

The carelessness in proof-reading is only surpassed by the want of good judgment displayed by the committee on publication, in printing papers which should never have been given to the medical public, or at least not in their present form.

Of course all the papers which were read before the convention, and many which were *not* read, were referred to this committee, whose special duty it is to put all such material in proper shape for publication, after excluding that which is manifestly worthless.

But what shall we think of a committee which publishes fourteen pages of private letters written in answer to the enquiries of the chairman of the committee on practical medicine; letters which show upon their face that they were not intended for reading in public, and which, fortunately for the convention, were not read. They were all referred to the publishing committee, with the request to publish as much of them as was thought proper or necessary. *Not an iota has been changed in these letters*, nor in any other paper presented, although the crude form of many of these compositions would have been greatly benefited by the editorial file.

We have penned this criticism prompted solely by a feeling of profound regret. The Illinois State Medical Society is composed of the great body of professional men in our own State. We have, so to speak, a personal interest in this home institution, and anxiously desire that its Transactions should be such as we can regard with pleasure, consult with profit, and issue to

1 E. g. Page 52, Aqua Camp. ℥iv; p. 62, Mucilago Amyle ℥ii!

the world with pardonable pride. For this reason we have tried to show in the foregoing pages, how far below this standard the present volume of Transactions has fallen. It is better, far better, for us to learn of its fatal defects and deficiencies at home, than to be informed of them in the cruel phraseology of some strange critic, who may think the volume really worth dissecting.

F. C. H.

LECTURES ON PRACTICAL SURGERY. By *H. H. Toland, M. D.*, Professor of the Principles and Practice of Surgery and Clinical Surgery, in the Medical Department of the University of California.

The Pacific coast is the home of the bonanza. As a work on surgery, of any kind, this book is a bonanza of curiosities in style, argument and statements.

The very essence of practicality is in being systematic and definite. This book possesses no system whatever, either in its treatment of general subjects or in specification. It is not definite or explicit in anything except dogmatical assertions and examples of the personal infallibility of the author.

It opens with a consideration of Anæsthetics and Inflammation. *Ether* is "good for old or very young people." Chloroform should be given "rapidly," in order to avoid its after effects upon the blood! We had supposed the general impression to be, that chloroform within limits was less harmful in proportion to the youth of the patient.

The pathology of inflammation, as given, is notably weak, loose and behind the times. Three stages of termination are laid down: "1st. Dilitescence! 2d. Resolution. 3d. Mortification! In the first the inflammation "absconds," like a thief at night, and the "parts become natural." In the second the parts become natural honestly, as it were,—we fail to appreciate the benefit or the importance of the distinction.

Following mortification, "no amputation should ever be performed until the line of demarkation has fully and deeply formed," so that "a division of the bones" only will be required. The first amputation we ever witnessed was for acute

spreading gangrene, and the patient's life was undoubtedly saved by the operation. It is certainly a well recognized and proper procedure in some cases of this nature. Hospital gangrene was never heard of on the Pacific coast.

The remarks on the general treatment of inflammation certainly impress one with the idea that the powers of nature and the grace of God have no business to interfere for the welfare of the patient; if he does not get well per prescription and treatment of the doctor, he does right to "return to his fathers." The treatment advised is emphatically and positively *antiphlogistic.* 1st. General blood letting "*to syncope*;" 2d. Leeches by the dozen; 3d. Blisters large and full; 4th. Calomel *sure*—are indispensable and wonder-working. (Oh! ye shades of departed Esculapians, how ye must rejoice!)

If these *remedies* (*?*) will not work, or you "be timid," the author furnishes some "especially good" prescriptions, called "depressants" and "deobstruents," (*sic*) and the reader is at the same time notified that they are especially "superior" for "pneumonia and pericarditis;" and *note well*, if the latter trouble "be not *properly* treated it may terminate in death!"

Still a few pages further on, the author again helps us out with another "invaluable" prescription, which will "fulfill the indications more perfectly than any other remedy," in chronic inflammation of "*any* of the abdominal organs"! This last combination—p. 59—looks very much as if it might be the formula from which the universally applicable "California Vinegar Bitters" is concocted. (Quien Sabe?) This, of course, is "Practical Surgery"! Again, on p. 67, the cure of dropsy and all serous effusions is made easy and certain by a never failing combination, beyond which it is useless to search, or words to that effect.

We believe these things to be entirely out of place in *any* surgery, and when found in a course of "Practical Lectures" to a class of students, they indicate either a want of confidence in the Professor of Practice, or an inane desire on the part of the lecturer to deliver himself of some "sure cures."

On page 74 is the astounding assertion that an "Abscess is

formed by the *absorption* of the surrounding parts for its accommodation!" We had always supposed that the "surrounding parts" were displaced merely by the accumulating fluid. If the latter were not the true state of affairs, abscesses would be deadly and dire afflictions, and not commonplace, as they usually are. Again, page 77, "Pus is a secretion," "prepared by the capillary vessels!" There *is* a fountain sure. Again, "Abscesses are frequently absorbed," even "syphilitic abscesses are absorbed" without "any especial contamination of the system"!

Chapter VI. is a useless conglomerate mixture of unsupportable assertions, terrible platitudes, and "rare exceptional cases," under the head of "Lymphization." It is wonderful how the author manages to avoid the subject in hand, and wanders, and wanders on a "still hunt" after new topics, not only in this chapter, but in every chapter. No subject is treated of continuously—nothing exhaustively. He is continually "breaking out" with something else, like the coming forth of new crops of boils—it is really painful.

Chapter VII. opens with a "rare" case of ordinary scrotal hematocele, illustrative of "hemorrhage from inflammation"! Following this we are treated to some of the most unique opinions upon absorption and ulceration that book ever contained. We believe them to be original.

The "same old story" is told in the classification and treatment of ulcers—"Cancer is an ulcer that never heals"! "Ramollissement" uses up one paragraph, which is a whole mint of information on that subject. But does it belong to surgery? On page 93 the author labors with induration, and delivers himself of another formula for enlargement of the spleen and intermittent fever, never known to fail! The remarks on "Transformation," (a new term) "Hypertrophy" and "Atrophy," all in this same chapter, are truly ponderous in their wealth of research and importance of application to the subject in hand, provided the reader allows his imagination to have full play.

Chapter VIII. treats of "Congenital Malformations." Among the first mentioned is "Enlargement of the Fon-

tanelles," for which the liver is blamed, and "three or four grain doses of calomel at night," recommended! The club-foot shoe shown in the plate is the old-fashioned leg brace shoe. A shoe without braces passing beyond the knee joint, and embracing the thigh, can never succeed in correcting the inward twist of the foot in this deformity.

The author's "Felt" apparatus is practically a "fixed dressing," akin to plaster of Paris.

Tumors evidently present a rough and tumultuous sea for the lecturer,—things don't ride easy at all—it can safely be called "Heterologous."

In chapter X. scrofula is duly noticed. The general directions are about up to the accepted beliefs, but the medicine advised consists of the "Vinegar Bitters" prescription, heretofore noticed—it "starts the liver!"

"Never open the larynx or trachea for diphtheria"! This sentence in the author's opinion finally disposes of the important subject of Tracheotomy in this disease—a subject demanding the most careful and painstaking consideration of the practitioner. The opinion is based upon four fatal cases, performed "to gratify the friends" of the patients. This dogmatical statement is alone sufficient to condemn the work; there are many others even worse. In the face of the pathology and treatment of diphtheria, as elucidated and developed by many noted and eminent men—knowing that hundreds of children and adults are now living to testify to the safety and necessity of this operation—we deem this wholesale, sweeping and unqualified assertion—reiterated and repeated as it is in these pages—both outrageous and pernicious. It is valuable only as a monument of the author's total want of information on this subject. No surgeon who waits for the "friends of the patient" to *ask* for the operation before realizing the necessity for it, will ever have any successful cases. The author has a prescription which "dissolves the *albumen*, of which the membrane is composed"!

The consideration of the hip joint, whether with reference to its diseases or dislocations, is lamentable, weak and worthless. Dr. Toland claims to be the introducer of *sub-periosteal*

operations, and yet considers "amputation (at the hip) preferable to re-section," the latter always leaving the limb a "useless, inert mass!"

Under fractures, we find this sentence, "The femur, notwithstanding its *great length*, is *occasionally* fractured"! The author has no use for, and cannot conceive of, any better apparatus for the treatment of fractures of this bone, than the double inclined plane.

Professor Brainard's method of treating ununited fractures is given in this language: Prof. B. "passed ivory pins between the ends of the bones and allowed them to remain," etc.! This *will* be news to Professor B.'s friends.

Tetanus has no terrors for Dr. Toland. He controls the spasms by giving "twenty drops of tr. cannabis indica every two hours," until the "symptoms entirely disappeared," together with morphia.

The author claims the performance of the "first operation for strabismus in America;" the discovery of the hæmostatic properties of Monsel's salt; and to be the first surgeon to perform "sub-periosteal operations." He has also discovered and named a new kind of hernia,—"peritoneal," he calls it. It is apt to affect the position of the linea alba. Chelius' Surgery, published some fifty years ago, contains an excellent description of this same trouble; and the latter surgeon warns the reader not to be led into the mistake that these little protrusions have anything to do with the trouble, if they are found in a patient suffering from colic. Dr. Toland cuts them off, without doing the patient any damage.

The author goes "out of his way" to prove that ophthalmology and otology have shown no advancement during the past "twenty years;" on the contrary, less is known about eye and ear troubles now than then. Such instructions as "bleed from the arm to syncope." "to repeat the bleeding," "apply leeches back of the ears," "shave the scalp and blister," are given as some of the methods of treating "acute inflammation of the eye." Von Graefe and others have done nothing to improve operations for cataract, etc. "Couching" is the best operation.

Under the head of diseases of the joints, a prescription is given for inflammatory rheumatism, which is "the best combination that has ever been suggested," "Dr. Flint, Jr." to the contrary notwithstanding.

The author claims to have performed ligation "for aneurism oftener than any other surgeon in the United States." Somewhere in the book, "the latter end of the last century," is ligated.

Dr. Toland leads many a "forlorn hope" against the opinions of "*other physicians*," whom he has met at the patient's bedside, during his chequered career, and always comes off victorious. This may be an evidence of "Toland's luck," as it is termed; still we cannot think any such reference either modest or properly placed, when found in any scientific work offered to the general profession.

The profession will gain nothing from this work, and like Rip Van Winkle of old, would have been "better off midout it." It is centuries behind the times.

The author, in his preface, calls the work a "Talk" on surgery—yes, an office talk.

We are fully convinced that no surgeon can ever *add* to his laurels by publishing an "*extemporaneous*" book. The last page contains a plate with description of two "rectum specula."

The publishers deserve every praise for the execution of their work. C. T. P.

Observations on the Diseases of the Rectum. By *T. B. Curling, F. R. S.*, Consulting Surgeon to the London Hospital. Fourth edition. *Lindsay & Blakiston.* 1876.

We are told in the preface to this new edition, that the former one has been completely revised and added to; so that the work is brought up to date in all matters of which it treats. It is certainly a very excellent work upon a very important subject. It comes from the hands of a surgeon of acknowledged ability and large experience in the department of which he writes; and any one who wants a clever and judicious instructor, and from whom he would seek assistance in

the care of cases of diseases of the rectum, cannot do better than to carefully study Mr. Curling's book, and follow its teachings. It is very pleasantly written and beautifully printed and bound; so that altogether the book is a credit to its author as also to the well known publishers.

R. G. B.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. Second series. Edited by *David W. Cheever, M. D.*, and *F. W. Draper, M. D.*, 1877.

This would more correctly be called a second volume, than a second series. Series means a row, and as the first series contained only one volume, though that was a large and valuable one; it was hardly enough to make a row. It is to be hoped that American hospitals will not follow the faulty plan of Guy's, in London, which has added a useless annoyance and perplexity in the matter of references, by repeatedly commencing a new series, and beginning again at number one with its volumes. There is no conceivable sense in such a procedure, especially in Guy's reports, where there is no material change in the shape and size of the volumes. The Boston City Hospital has changed its style from the green cloth binding of the former volume to a plain heavy paper cover with a cloth back, in imitation of Guy's Hospital Reports.

The contents of the volume are very valuable, consisting of cases, histories and tables of a highly instructive character. Some of the cases are illustrated by series of well executed lithographs, some of which are colored. This is, in many respects, the most creditable hospital report ever issued in America, and the staff of the Boston City Hospital have reason to be proud of its contents.

E. A.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY.—Vol. I. For the year 1876. H. D. Houghton & Co., Boston: 1877.

The value of this book consists in the articles on various gynecological subjects that it contains. The names of the writers of these articles are a guaranty that this work is of ex-

traordinary value. Papers by Barker, Emmet, Skene, Batty, Duncan, Jenks, Parvin, Barnes (of London), Byford, Thomas, Campbell, Richardson, Chadwick, Noeggerrath, Wiltshire, Goodell, Tait, Bixby, Peaslee and Mundè form a collection of contributions seldom contained in one volume.

No detailed account of the papers submitted will be here attempted. They must be read by every physician bent on keeping pace with the development of this branch of the profession, and then he will receive instruction direct from men who have, in some instances, devoted themselves for years to the subject upon which they write.

J. H. E.

A Treatise on Hernia with a new process for its radical Cure and Original Contributions to Operative Surgery and New Surgical Instruments. *By Greenville Dowell, M. D. D. G. Brinton*, Phiadelphia, 1876.

Monographs on special subjects are common enough these days, and we suppose all of them are put forth to fill a place or supply a want in medical or surgical literature, which is noticeable to the writers thereof. If the above one is expected to fit into some vacant place, we don't know where to put it, except it be among the novelties, and lable it, not "why so," but "why made."

There may be many good and valuable suggestions in the book, but we have failed to find them. The personalities might have been omitted without detriment to the work; and in fact we think most, if not all, could have been left out without doing violence to the literature upon the subject of hernia. As to the "new operation, or the author's process" we cannot express an opinion. It seems to have been very efficient in his hands, who probably understands the workings of the process, but we have to confess to so great obtuseness of comprehension as to be unable to understand the various manipulations in the different steps of the operation, from the descriptions given, even with the aid of the very elaborate illustrative plates.

If we were to call attention to some of the very loose ways in

which the subjects are treated, we would cite that of irreducible and inflamed herniæ. The causation of the latter is given as accumulation in the sac of foreign substances, such as "worms, seeds, ingesta, kicks, falls," what about these two latter getting inside of a hernial sac? The treatment would suggest itself, if not, we would refer the curious to the book. In case of irreducible hernia, we are advised to use "mercurials and alteratives to reduce the tumor," how they are to do this, is not told. We are also advised to get "complete relaxation of the neck, (neck of what is not stated) by sedatives and anodynes, as opium, chloroform, belladonna, and veratrum," how used, is not said, but we are told to use ointment of belladonna, veratrum and iodide of mercury over the tumor, to produce absorption and relaxation. How any or all of this would be expected to put an irreducible hernia into a condition to render it reducible, we cannot understand. We had supposed that a hernia which could be replaced by other means than by surgical operation should not be styled irreducible. The patient is very sagely advised to "not let himself become constipated, or the hernia impacted by cherry, water-melon, or other seeds, as they are often the cause of strangulation." The author says he thinks this variety of hernia, (the irreducible,) must be very rare, for he has never seen a case. We think he might as well have dismissed the subject at that, as to have tried to enlighten the surgical world upon a subject, of which he evidently knew so little. What has been said will apply equally well to what our author says upon incarcerated, impacted, and strangulated hernia. The causation, symptomatology, pathology and treatment all through, are something fearful if not wonderful, and we could readily believe that he has seen but little more of any kind of hernia than he confesses to in the case of the irreducible variety.

The part of the book devoted to new instruments and original contributions in operative surgery is in keeping with the other.

We were at a loss at first to know whether or not the book was intended as an advertisement for instruments and appliances, for in style and general appearance it could hardly

enter the field as a rival, even of the illustrated catalogues of instrument makers and venders.

We could not commend the work to the profession, as containing information that cannot be found in better shape elsewhere, except it be to try to learn what the "author's process" is. We do not believe the work will establish the writer, with his truncated pyramid of titles, as an author, nor the publisher as a desirable book-maker.

R. G. B.

AN INDEX OF DISEASES AND THEIR TREATMENT.—By *Thomas Hawkes Tanner, M. D., F. L. S.* Second edition. Revised by Dr. W. H. Broadbent, F. R. C. P., London. Ps. 432, 8 vo. Lindsay & Blakiston, Phila., 1877.

This volume is intended to facilitate the work of the busy practitioner. It consists of an alphabetical arrangement of all diseases, with a short description of each and of its treatment. It contains articles upon every subject, from *abscess* to *zona*. In the sections on treatment, the author gives numerical references to prescriptions in full, contained in the latter part of his book. Over 400 of these complete prescriptions are given, as a sort of appendix to the main work. In the appendix are contained some formulæ for aliments, some remarks on electro-therapeutics, a description of climates for individuals, and of mineral waters together with their analyses.

The book will prove a very useful one to the practitioner who has not the time necessary to carefully study every case for which he prescribes. The physician who studies much will not use it to any extent; but the physician who *will not* study and yet wants to know what to give in such and such cases, will probably find the work invaluable.

J. H. E.

Editorial.

The issue of the present number of the CHICAGO MEDICAL JOURNAL AND EXAMINER concludes the volume for the current year. The editorial corps, reviewing the efforts put forth to realize the aims of the *Chicago Medical Press Association* and the results actually accomplished, might with reason point, not merely to the enlargement of the present volume which has been found practicable during the year, but to the greater value of its contributions to medical literature. This last result is unquestionably due far more to the character and labors of contributors, than to the personal efforts of the editors themselves. We are content, however, to leave the consideration of these questions to our friends and subscribers, with whom, after all, the vital decision as to the merits and demerits of this JOURNAL must eventually rest.

We have to express our thanks to the various medical gentlemen who have efficiently aided us during the year. To Drs. J. E. Owens, E. W. Sawyer, D. R. Brower, J. S. Knox and W. J. Maynard, we are under obligations for the full reports from the sections of the American Medical Association in its twenty-eighth annual convention, published in our July number. To Drs. W. F. Lewis, J. S. Knox, L. W. Case, D. A. K. Steele, E. Lackner and Chr. H. Fenger, we are greatly indebted for assistance in the preparation of our monthly digest of literature. And to all who have favored us with contributions during the year, we have also to extend our acknowledgments.

It becomes our duty at this time to bid a public and cordial farewell to two gentlemen, who have been associated in the editorial management of this JOURNAL since the issue of September, 1875, when its control was first assumed by the *Chicago Medical Press Association*—Drs. J. H. Etheridge and Norman Bridge. Their efficient and valuable services have

largely contributed to whatever of good has resulted from the fusion of the two separate medical periodicals formerly published in Chicago. They have done their part also in maintaining that cordial unanimity which has from the first distinguished the labors of the editorial corps, and which arouses a natural regret at this first change in its *personelle*. Their retirement is of their own choice, and necessitated by the pressure of other duties, Dr. Bridge having been entrusted with the charge of the library of the Association, and Prof. Etheridge having been appointed Secretary of the Faculty of the Medical School with which he is connected.

The editorial management will remain otherwise unchanged; and it is proper to remark here that this furnishes an illustration of one of the features of the organization which now controls the publication of this JOURNAL. The editors are elected by the Board of Directors of the Press Association, a corporate body, the constitution of which furnishes an ample guarantee as to the wisdom of their selection. While the editors, therefore, may be changed from time to time, the permanent character and value of the CHICAGO MEDICAL JOURNAL AND EXAMINER will not be thereby affected. No pains, nor expense will be spared in the future to still further increase its success and influence. It is in position to announce to the medical public, in the language, now rendered famous, of the French Marshal-President:

"*J'y suis et j'y resterai jusqu'au bout!*"

Correspondence.

PROPOSED PLAN FOR A MEDICAL REFORM.

To the Editor of the MEDICAL JOURNAL AND EXAMINER.

The plan which I would propose has for its object an association of physicians and surgeons, somewhat similar to the Royal Colleges of Physicians and Surgeons of London, Edinburgh, and Dublin—for the purpose of elevating the tone of the profession, stimulating earnest, careful study and original

investigations—for the purpose of benefiting pecuniarily and medico-socially its members—and for the purpose of enabling the profession, and more especially the laity, to discriminate between the charlatan, the drone and the mass of workers of the profession.

Under this plan there would be necessary the organization of a new medical society, which should require the candidate for membership to satisfactorily pass such examination as shall be prescribed on the fundamental principle and outlines of the several branches of medical science; and on such extra-professional topics in the collateral sciences and general information as may be determined upon.

I would also propose that there be established, as a further honor for those entitled to such distinction, a Fellowship in this society—a Fellowship difficult to obtain, to be regarded as an honor conferred, as a prize to strive for, and one to which (as the profession is now constituted) only the best men could aspire.

To accomplish this I would have the matter carefully thought over by the best men in the profession—then have a number of these sign a call, to be sent to each member of the regular profession in each city, and to such outside physicians as would be thought likely to attend, for a meeting to discuss and adopt a preliminary plan. The meeting to be called to order by some one who is a leader, who would in a few well-chosen words shadow forth the outlines of the scheme, and thus prepare the way for proceeding to a permanent *preliminary* organization. Then elect a Court of Examiners, and, through a *strong* committee, adopt a plan and scope of examination for the purpose of procuring a number of charter members, (say about 20) for the future medical society—the preliminary organization then to be considered as having accomplished its work. The *twenty* should now proceed to organize, elect officers, adopt a Constitution and By-laws, get an act of incorporation, and then zealously guard the interests of the profession.

After a period of *not less* than six months, let the members beget, as the charter members were begotten, about fifteen

charter-fellows, who should also be incorporated, and grant diplomas.

I would authorize the Fellows to append to their professional signatures as an additional title, the initials of the name of the society.

I would *in the strongest and most positive terms* prohibit the conferring of *membership* upon any one, except those regular practitioners of medicine who have, in the regular way, secured the approval of the Court of Examiners; and just as strenuously prohibit the conferring of Fellowship upon any one, except such members as have in the regular way secured the approval of the Court of Examiners for this advancement; and I would have this secured by legislative enactment in the charter.

With a view to the proper remuneration of the Court of Examiners for their services, and for the purpose of placing the organization upon a solid financial basis, (and this I believe to be one of the strongest cements for holding such bodies together and to the mark) I would make fifteen ($15.00) dollars the minimum fee for the membership, and twenty ($20.00) dollars the minimum fee for the Fellowship.

I would have all of the examination papers in the case of each candidate sealed and carefully preserved, only to be opened, if desirable, by a two-thirds vote of all the members of the society.

I would make the limits of the society commensurate with the boundaries of the State, with a view to its early recognition by the State legislature, as authorized to exercise a censorship over medical professional matters within the State.

I would set the standard high from the first, certainly high enough to secure a selection of *not more* than sixty per cent. of the first year's candidates, and that very few might find the requirements easily satisfied.

I may be over sanguine, but I believe that the times are ripe for a movement of this kind, and that in several of the States the workers are ready to wheel into line as soon as some State has taken the initiative; and I furthermore believe that to the pioneers in a much-needed work of this kind due honor

and credit will be gratefully accorded. I also believe that ere *ten* years would have passed, this membership and Fellowship would be recognized and properly appreciated by the people, and be demanded by them as a qualification from aspirants for professional positions or for the brightest smiles of public favor.

M. W. Wood, *Asst. Surg. U. S. A.*

Fort McKinney, Wyoming Territory,
Oct. 17th, 1877.

To the Editor of the Journal and Examiner:—

An editorial in No. 363 of the *New York Medical Record*, entitled, "How to Maintain Discipline," has a few suggestive ideas, which might be extended to more specific conclusions with general advantage. As a stranger, recently located in Chicago, the writer of this communication is moved to the expression of some opinions upon the hackneyed and threadbare subject of the Code Medical.

And first, as to the usefulness of a code of ethics, "denied by a late President of the American Medical Association," as stated in the article above referred to.

But few medical men, it would seem, even among those who class the profession as a simple business pursuit, should be willing to blot out the restrictions pertaining to the conduct of the business, or to break down the regulations which shape and govern the intercourse of the merchants engaged in it. No reference need be made here, to those who place the practice of medicine upon a far higher plane, and seek to remove it beyond the atmosphere of commercial influences.

To both classes—or to all classes, if there be others revolving between the orbits of these extremes—a specific understanding as to what shall, and what shall not be considered *en règle*, would seem to be as necessary as the statutory enactment of moral and penal codes for the proper ordering of society, and the protection of the personal rights and safety of its members. Not only are governments built upon codes of law, but the principle underlying their necessity,

is extended down to every department of life, involving the idea of similar effort, whether of an associated nature or not. Hence, every corporation, public and private; every guild; every trades-union; every society, whether of a business, religious, benevolent, literary or scientific character, has its prescribed formulæ of enactments, staking out the boundary lines of correct deportment, and running the parallels of conventional rectitude.

The extent to which one might moralize upon this indisputable fact, seems without limit. The hard essence of it is, that men are constructed differently in their mental organizations, reflecting different sentiments according to the nature and balance of the mind which conceives them. Just as a ray of light, falling upon different objects, reflects the primary colors of the spectrum, so the best and highest inspirations of humanity are shaded into a play of moral colors, in direct relation with the mental attributes from which their views and actions are reflected. Whether the reasons for this are inherent, belonging to the structural or anatomical character, or whether they proceed from different varieties of the moral perceptions, may safely be left to the theologian, or remanded to the arena of the metaphysician.

We deal with the fact; and from this it would appear, that a code of written rules, prescribing so far as may be, the nature of the obligations, duties and relations of physicians, is as necessary to the corpus medical, as to the body politic. By such means, and such means only, can the intricate questions arising out of the gored ox, be satisfactorily settled.

This proposition, then, being conceded as an abstract or theoretical verity, and the code in general being established, perplexing problems necessarily arise in its practical operations and executive administering. It would seem impossible to make laws covering every shade of wrong-doing, from the guarded insinuation, to the flagrancy of the overt act. No legislative tribunal has ever attempted such a thing; and with all the written statutory enactments pertaining to the administration of justice, personal rights would often be invaded, and the guilty go unpunished, were it not for the broad and benign principles of the common law.

The most that we, as medical men, can do, therefore, is to prescribe *general* rules relating to the intercourse of physicians, and establishing conventional tests of acceptable deportment in the prosecution of a double-featured calling; in the one aspect, a lofty, dignified, unselfish and humane vocation; in the other, bound by the accompanying fee to the haunts of trade, and nailed, like a base coin, to the counter. And just here it is that the whole difficulties of the case appear. In the aspect of scholar and philanthropist, exemplary and magnanimous professional conduct follows by natural sequence; in the garb of business, the tricks of trade are as irrepressible as Banquo's ghost, which would not down. Fortunate is it for the general welfare, that there are practitioners, and many of them, who without leading an ideal life, are sufficiently great to subordinate the latter to the former; or perhaps, more accurately, to run the machinery of the business with a "governor" constituted of the higher and nobler elements of the calling.

Hence, in the present nature of the case, it would seem impossible to accomplish more than as above indicated. We have not the machinery of courts, with judge, prosecutor, advocate and jury, backed not only by written laws, but rendered infallible by principles of equity; and all past attempts at their constitution, in form or essence, have been failures of necessity. The code must stand as a moral obligation, and the details of every-day action under it, must be remitted to the casuistic sense of each individual member of the profession. Flagrant acts of empyricism may be taken cognizance of, and punished, of course; but the refined charlatanism of our day—that of which we most complain—scorns all vulgar methods, and delights in the art which accomplishes an end with the skill of the *prestidigitateur*, who in the pride of his achievements, assures us that now it's visible, and now it isn't.

It is no grateful task to assume the severe character of a censor, or to arrogate to one's self the attributes of an exemplar. But an old disease has broken out with renewed intensity, and fastened itself upon the modern profession of med-

icine; and it is neither the part of wisdom nor of manhood to disavow it, or shirk the encounter. Upon the contrary, it is no less a duty to ourselves, than to the general public, whose well-being in one sense, we are supposed to hold in keeping, not by a mere medical fiction, but in reality, that we meet the question squarely at all times, and determinedly apply ourselves to its best solution. By such means only can we hope in this, as in all other human problems, "Out of the nettle, danger, to pluck the flower, safety."

Here we tread upon perilous ground, and it is essential at the outstart, to define our positions clearly, that they may be in no danger of misinterpretation. What, then, is this disease of the modern body medical? It certainly does not consist in the circumstance of a certain number of men living in open violation of a code of ethics adopted by the American Medical Association. This would be but a narrow view of the case, the true cause of which stretches its roots far deeper than questions of mere medical polity, and grows from the subsoil upon which rest the very foundations of our modern medical temple. Perhaps there has never been a time when there were fewer examples of open or penal infraction of the ethics of the "regular" profession, (a distasteful expression, but apparently necessary as a generic term) than in our own day. As satellites of a central luminary, representing, as we believe, the sum of our present knowledge of medical truth, we revolve around the code of the National Association, within a very clean-cut orbit, and he who swerves but a degree beyond it, soon goes whirling into the regions of medical fallacy and pretension.

Our parallel ceases here, however, and there can be adduced no further similitude with the systems of worlds which travel through illimitable space upon celestial time-tables. Our orbit is a sort of Rubicon, beyond which we must not go, but *within* which many deem themselves privileged to take cross-cuts and royal roads; and in pursuing their erratic flight, to occult as many of their fellow twinklers as possible.

To treat our case upon principles of medical logic, it

would be appropriate to regard the symptoms of the disease as the premises of a syllogism, and deduce the cause as the inevitable conclusion. The former, then, in a few words, may be said to consist in subordinating the higher elements of the profession to its baser features as a trade or money-getting art. Your correspondent knows not how better to formulate it in a single, dogmatic sentence.

It would be an unpalatable, as well as ungracious task to cover by narration, the arts, tricks, devices and methods so energetically resorted to by many physicians, of all grades and of every school and *ism*, whereby all possible soils are "worked" that they may bear a return to the industrious cultivator. From the doctor who runs the ward meetings, hoping to reap the political places, to him who gets invited out to society gatherings and displays his æsthetic cultivation by select readings from the poets, there exist all shades of art in the business; running through every color, embracing every *pose*, depicting every possible perspective, and representing the crudities of the 'prentice hand, as well as the finish of the master. "All roads lead to Rome," and through whatever devious and narrow channels these efforts run, they but represent the acts which

> "Crook the pregnant hinges of the knee,
> That thrift may follow fawning"

Now, were such practices confined to the legions of pretenders, sailing under the flag of an *ism*, honest men might treat them with the scorn they deserve; but it is better to out with the ugly truth and confess they are not. Let no man say that this is an overdrawn statement. The proof is too accessible for successful denial. Far be it from the purpose of the writer to be hypercritical or harsh in judgment, and above all, to fail in a proper tribute to those who love their profession for its inherent worth, and who regard its pecuniary emoluments as did John Hunter, when, upon rising from a protracted dissection, he was wont to throw down his scalpel and exclaim, "I shall have to go and earn that miserable guinea."

But within the minds of many, no doubt, who will read

these lines, there are not a few modest and worthy medical men beginning to ask themselves some pretty hard questions upon this subject, and among others, perhaps something like this: "Wherein lies the difference between *legitimate* advertising by means of such reported cases and lectures, startling operations, etc., as are *specially prepared* for the profane eye and ear, and sure to find their way, by allusion or quotation, to the secular journals, and the more open one of boasting in public of cures performed, and playing fantastic tricks before a credulous audience? Or, perhaps, the subtle distinction between appending recommendations to Lacto-Peptine, a preparation proposing to relieve the stomach of any agency in the digestive process; or mayhap, to a mineral water differing by inappreciable fractions of composition from some other water, either of which may be as important in a therapeutic, as was the urine of Sir John Falstaff in a diagnostic point of view, as appears from the following:

Falstaff. "Sirrah, you giant, what says the doctor to my water?"

Page. "He said, sir, the water itself was a good healthy water; but for the party that owned it, he might have more diseases than he knew for."

What is the difference, it may be asked, between such recommendations, and certificates to the astounding efficacy of a patent medicine!

Let us be just, as well as temperate in expression; but let us not be too punctilious, or too timid to call things by their proper names.

The experience of every medical man of this day affords him personal knowledge of the many oblique lines leading to professional reputation, and pecuniary success; and true must he be to the dignity and honor of his calling, if, as a witness to the wild steeple-chase of success, and when, as it would almost seem, madness rules the hour, he can preserve his equanimity and bide the time for worth and merit to come to the stand.

If this philippic be grounded in truth and justice, and the symptoms of our sickness have been faithfully portrayed, what are the causes, it must be asked, lying behind such a distemper?

They are many in detail, and as per consequence, although few in substance and essence. Among the more potent of these, is the over-production of doctors, and the promiscuous adoption of a profession crowded to such an excess as to render competition for patronage a matter of business with many; and forcing some, in the struggle for sustenance, into the position of the poison-vending druggist in the play, when exclaiming

"My poverty, but not my will, consents."

The writer of this article, while an editor of a medical journal in a neighboring State, several years since, had occasion to discuss the question of medical education in all its diversified bearings, and ventured then to predict many of the evils which are now upon us. It was easy to foresee the result of the system of establishing medical schools at every cross-roads, and turning out graduated physicians, utterly ungrounded even in the elements of the profession. This milling process, however, has not been confined to the typical cross-roads; but when a professor in a certain metropolitan school asked a candidate for a degree, as the only question he had to propound, "How to make a mint-julep?" he simply stated the amount bid by his institution for popularity and patronage.

And when speaking thus of the "regular" profession (*sic passim*), we must not forget the accumulative sum of the *regular* quacks. They have their schools, too—their "courses" of study—their fees, and their diplomas.

Until medicine becomes (if it ever shall) an exact science, and like astronomy, mathematics, etc., there be but one arithmetical statement of the problems of health and disease, there must, of necessity, be all sorts of theories and all varieties of practices—much of the first wildly false, and much of the second intensely dishonest.

Of course, there must be a remedy for all these things, and possibly it may be found in advance of the millenium. But when it shall come to the world, it must come by agitation; it must come by the education of the people, and it must come through the schools and the masses of the profession. In some foreign countries, whose peoples are not supposed to be so enlightened as those of the "Great Republic," there are—

curiously enough—better methods for the protection of the population from empyricism than obtain with us.

If it were possible to make a medical diploma represent genuine qualification for the practice of medicine, (and some of our schools are undoubtedly laboring toward that end) and in case of those professing to dissent from the therapeutic theories of the "old school," to bear evidence of a thorough knowledge of such branches as are insusceptible of double interpretation—anatomy, chemistry, botany, mineralogy, obstetrics, operative surgery, etc., etc.—a long step would have been taken toward remedying present evils. How much of this, however, must be done by the State; how much by the schools of medicine, and how much by the profession at large, are interesting questions, admitting of wide discussion.

The writer has his own views upon the subject, and may be tempted to express them upon a future occasion. At present, his remarks have so far exceeded the limits which he designed for them, that he almost deems an apology necessary for their length, though he considers none requisite for their apparent warmth and energy. He believes that it has become too largely the custom to speak of the things herein treated, in guarded sentences, and almost with bated breath, as though their mere mention involved a lack of dignity, or a dangerous confession. Charity, it has been said, is the greatest of all virtues, but the time often comes when it is a mistaken policy, and an absolute injustice to the general welfare. Respectfully,

C. A. Logan.

99 Ashland Avenue.

THE NUISANCE CREATED BY RENDERING TANKS AND MANUFACTURE OF FERTILIZERS.

While in Boston a few weeks ago the inquiry was made of me by a gentleman, and with much levity, if Chicago still regaled her citizens "and the stranger within her gates" with the delightful odors borne on the breezes from Bridgeport and the stock yards. To the average citizen of Chicago, levity associated with such an inquiry would be classed with that

which good old Parson Kennedy, of Connecticut, termed the "damning levity of sin."

To the stranger it may seem a very ridiculous thing that a great city of 500.000 inhabitants with commercial interests and relations second to few, and a business sagacity, enterprise and energy, second to no city in the world; with a municipal organization "honest, capable and faithful" and with all its legal machinery intact, should suffer itself to be outraged for twelve years by one of the most intolerable nuisances that ever afflicted a people; but the citizen will recall the fact that a great industrial interest in the hands of a compact, able directory, and backed by a capital of more than $20,000.000 is not very ready to listen to the complaints of one or many individuals, and particularly if any effort to change the old and established order of things, will possibly exhibit itself on the wrong side of the ledger. And he will recall the other fact, that attacks upon it have seldom been organized, methodical and persistent, but rather fitful and frantic. Since it can be demonstrated that a process of rendering animal matter and manufacture of fertilizers can be conducted in a perfectly inoffensive manner, the time has come when the energies of those engaged in the business, should be expended in another direction than constructing tall chimneys in order to diffuse their fearfully offensive odors to a greater distance, and when summoned to appear in court, presenting themselves with their troup of laborers and retainers to swear that the premises are sweet as banks of flowers in June. The time has come when the citizen should regard it as one of the highest political duties, and a paramount social obligation, to insist that the issue should be squarely made and the following declaration of faith and work accepted by all, either the business referred to must be conducted in an inoffensive manner, or the business must move, or the city of Chicago must move.

There are gratifying indications that the more intelligent and honorable men engaged in the work, are disposed to co-operate with the authorities in an effort to remove the cause of complaint.

It is the purpose of this paper to show the amount of ma-

terial rendered and manufactured into fertilizers within the limits of the city, and within one mile of its limits; the source and character of the offensive gases generated, and the methods by which a suppression of this great evil may be accomplished. There was slaughtered last year within the limits before mentioned

299,020	Beef Cattle,
3,058,444	Hogs,
168,170	Sheep.

Each beef is estimated to yield 50lbs. of offal, the hog 20lbs. and the sheep 7lbs.; a total of 77,277,070lbs. of animal matter for the rendering tanks. This will include head and feet, but not the blood, of which there were 224,500 barrels of 32 gallons each. In addition to this we must bring the odds and ends, bones, scraps, etc., from all the markets, the decayed fish, and the beef found in the markets and slaughtering houses and condemned by the sanitary inspectors as unfit for food—of which there has been condemned and thrown into the rendering tanks, from April last to this date, 126,400lbs.

In the disposition of this immense amount of animal matter often in all stages of decomposition—and the animal tissues containing fat are much more subject to rapid decomposition than other portions of the animal—the first process is to extract the tallow and fat from the mass and thoroughly separate the soft tissues from the bone. This is accomplished in steam-tight, iron tanks, of from 8 to 10 tons capacity, into which the crude material is thrown and subjected to a cooking for several hours by a steam pressure of from 40 to 60lbs. to the sq. inch.

The slaughtering and packing houses of our neighborhood have an aggregate of 237 tanks as above described.

It is during this exposure to great heat within the tanks that the foul gases are generated, and if conducted directly within the flue from the tanks, it is practically impossible to construct a chimney so high that the gaseous and noxious effluvia will not diffuse themselves, to cool and descend upon the surrounding neighborhood.

These gaseous products of heat and decomposition are the various sulphur combinations, sulphuretted hydrogen, phosphuretted hydrogen, and ammoniacal gases, and they may be more or less offensive, depending upon the degree of decomposition taken place in the raw material before the cooking has begun. Nevertheless, under any circumstances and no matter how fresh the materials, there will be given off offensive odors during the melting process under such great heat from the nitrogenized matters always in combination with such material.

Again, if the freshest fats are subjected to a heat of 500° Fahrenheit, they begin to undergo a decomposition; the base glycerine is decomposed and a product called acroleine—an exceedingly acrid and irritating vapor—is set free. Methods have been proposed by science for the extraction of these fats from the raw material by means of the hydro-carbon oils, and by naphtha; also, by using bi-sulphide of carbon, in which the yield is much greater and the product said to be superior. These are patented but not well understood in this country, although extensively applied in Germany and France (Moreau Morris). The attempts made to destroy these gases by "condensing," washing, burning, etc., etc., have been numerous, but rarely scientific, and not largely successful as this community will testify. The old and rude process of the open kettle, with its unrestricted escape of steam and gases, is more satisfactory than the modern steam-tight, boiler-iron tank with its escape-pipe leading directly into a chimney 200 feet high, for in the one case the gases are left nearer the ground and localized, while in the other they may be carried by the winds for miles before sufficiently cooled to fall. That these gases cannot be destroyed by simply conducting them into or under an ordinary furnace fire of from 500 to 800 degrees of heat, will be understood by any one who comprehends their nature and composition, yet this has been the usual method pursued in our vicinity. The sulphur compounds are undoubtedly destroyed by combustion, but the ammonia with all the fetid products held in association with it, pass unchanged up the flue. The process of "condensing," for which much is said and

claimed by those interested in the operation, is equally fallacious, for by passing the gaseous products evolved from the rendering tanks through large volumes of cold water, nothing is effected except the condensation of the steam into water, leaving the gases dry—but ammonia will not burn, wet or dry, without special apparatus for its combustion.

There are two methods in practical operation to-day by which these offensive products are satisfactorily destroyed. The first was patented by Lockwood & Everett, of New York, in 1865, and is now in successful practice there. Steam-tight iron tanks are used for the reception of the offal, and these tanks are heated by steam applied upon the outside only.

The offensive gases are forced by the pressure evolved within the tanks, through an iron pipe, which passes over them and is connected with each tank by a short connecting pipe, into a system of iron coils which are placed in a separate and independent furnace ; here they are subjected to a heat of from 1500 to 1700 degrees Fahrenheit, and thus superheated, they are brought by an ingenious and scientific arrangement of argand burners in contact with the flame of a furnace in combination with sufficient oxygen to produce a perfect combustion and without a trace of offensive odor remaining.

The second process which I shall describe was the experiment of Mr. James Turner, of this city, which resulted in Turner's patent (1872), which has been modified and patented by Mr. Dennis Wood, also of this city. The process is essentially the same in both patents, the modification consisting of a different apparatus for condensing the steam. The same steam-tight tanks and conducting pipes are used as in the New York patent, but by our process heat is applied to the mass by carrying the steam within the tanks. The gases commingled with the steam are forced through the conducting pipe into the bottom of a large tank of cold water, which is constantly renewed ; the gases rise through this body of cold water, the steam is condensed, and the dry gases collect in the upper chamber of the tank. From this chamber they are conducted by a pipe into the bottom of an iron tank partially filled with gasoline or other of the lighter distillates of coal tar. As the

gases rise through this highly inflammable material they become charged with it to such a degree that when conducted under an ordinary furnace they burn with fierce intensity.

When thus charged, they may be conducted over the building and used for illuminating purposes, as is done at Mr. Turner's establishment.

By either of the processes referred to, the noxious gases from rendering tanks may be entirely destroyed.

There remains still another source of great offence. When the contents of the tanks are sufficiently cooked, the steam is shut off, and when cooled down the material is drawn into large wooden vats at the base of the tanks. As they cool the fats are skimmed from the surface, and the remaining material is removed in carts to the houses for the manufacture of fertilizers. This process—the conversion of the tank material into a commercial fertilizer—is simply driving off the water from the "tankings" to about 13 per cent., and grinding the dried product.

The drying machine generally consists of a revolving cylinder, thirty feet long and three feet in diameter, inside of which are arms for the purpose of comminuting and breaking up the material. The heat is supplied by fires underneath, and in some instances a current of hot air passing through the cylinder.

When in position that end is highest where the material is fed into the dryer; the refuse constantly revolving and agitated by the projecting arms, is kept in motion until it passes out at the other end in a dry state.

From two to ten tons can be passed through in an hour. (Ben. C. Miller, paper read before Public Health Association, Philadelphia.) In these houses also the blood is received in barrels from the slaughtering houses, and after being treated with sulphuric acid (to fix the ammonia in the stable form of sulphate of ammonia), it is passed through the dryer in the same manner as the tankings. Passing through such intense heat and drying so rapidly, the volume of steam and gases evolved are so enormous that the various processes in use for condensing or burning, have proved entirely inadequate and unsatisfactory.

It is probably true that destruction of these gases by chemical decomposition is the only practical method of dealing with them. As a tentative measure in this direction, the following means have been devised. It was found, by experiment in a small way, that by passing these gases through a solution of per-nitrate of iron, or over surfaces covered with this salt, the offensive odors were entirely destroyed. The problem to be solved, then, was simply this: by what means can the large volume of gases from the drying cylinders be brought into contact with this salt so intimately as to be completely decomposed?

At the house of Messrs. Oberndorf & Shepherd, (stock yards) a matched plank, steam-tight box, was built 20 feet long by 10 feet broad, and 10 feet deep. Ten matched horizontal partitions were built within the box, one foot apart, and each partition four inches short at alternate ends. Each partition, from its attached to its free end, has a fall of a half inch. The spaces between the partitions were stuffed full of sheet iron scraps, amongst which was placed in each space from 15 to 20 lbs. of nitrate of potassa.

Entering the lowest space at the end of the box is a conducting pipe, two inches in diameter, from a little sheet iron stove or furnace near by, in which brimstone is burned. The gases from the drying cylinder are drawn into a pipe 18 inches in diameter by an iron fan, making 2,000 revolutions a minute, and this pipe enters the box in the same space as the pipe from the brimstone furnace. The gases after passing backwards and forwards between the partitions, escape from the upper space through a short pipe, with all offensive odors destroyed.

This box has been in operation about 60 working days, and it is found that 40 lbs. of brimstone, costing $1.30, will destroy all that is offensive in the drying of 20 tons of fertilizer, which is the average day's work at this house, when running.

The modus operandi is as follows: The sulphurous acid, generated by the combustion of brimstone, receives the equivalent of oxygen necessary to convert it into sulphuric acid, and acting slowly, but with sufficient energy, upon the nitrate of potassa to chemically decompose it and set free nitric acid

fumes. These fumes, coming in contact with the iron through which they pass in all directions, form the per-nitrate of iron, which coats each surface of every iron scrap; any excess of the iron salt is taken into solution by the steam which comes in from the dryer, and this solution slowly passes along each partition, dripping from the free end of the upper one to that below, and along that to the next, and so on to the bottom, where it is collected in a vessel to be used as a disinfectant about the premises.

It will be observed that the gases entering the box below must pass not only over 2,000 feet of board surface, covered with the solution of the iron salt, but also over the immensely multiplied surface which each iron scrap presents.

The cost of the box filled and ready to work is less than $150, and I infer from the work so far that the box will not require to be refilled oftener than every four months. This can be easily done by removing one end, and at a cost of about $30. It only remains to report the result of the years work in attempting to suppress this great nuisance.

On the first of January, 1877, there were only 8 tanks connected with an efficient apparatus, to destroy their gases, to-wit:

Mr. James Turner,	4 tanks.
Mr. Dennis Ward,	4 "

The remaining 229 tanks, when in operation, were pouring their noxious odors sometimes directly into the out-of-doors, sometimes under the furnace, to escape at the top of the chimney, sometimes into a tank of water to be "condensed," and from there to the flue and out; but whichever way they passed the result was the same—an intolerable stench "going with the wind."

The following houses have recently connected their tanks with a perfectly satisfactory apparatus:

Turner Bros.,	2 tanks.
Shönemann & Co.,	5 "
O'Malley & Sons,	4 "
J. L. Hancock,	6 "
J. E. Smith,	4 "
J. Flanigan,	2 "
E. D. Chapin,	4 "

The following houses are at this date putting in, and by Dec. 1st will have completed the same apparatus:

Fowler Bros., - - - -	10 tanks.
Hutchinson, - - -	35 "
Higgins, - - - -	15 "
Bottsford, - - - -	8 "
B. F. Murphy, - - -	15 "

Making a total of 118 tanks in operation without offense.

There are 53 tanks in houses at present closed, and 66 tanks in houses, the proprietors of which have up to this time refused or neglected to correct their evil work. "No business detrimental to the public health, and which is carried on in defiance of great sanitary laws, positively neglecting to adopt the remedies at hand, should be tolerated in civilized communities."

OSCAR C. DEWOLF, M.D.,
Commissioner of Health.

CITY HALL, CHICAGO, Nov. 15th, 1877.

BOOKS AND PAMPHLETS RECEIVED.

An Index of Diseases and their Treatment. By Thomas Hawkes Tanner, M.D. Second edition, revised by W. H. Broadbent, M. D. Philadelphia: Lindsay & Blackiston. 1877. 8vo. Cloth, pp. 432.

A Treatise on Gonorrhœa and Syphilis. By Silas Durkee, M. D. Sixth edition, with eight colored illustrations. Philadelphia: Lindsay & Blackiston. 1877. 8vo. Cloth; pp. 467. Price, $3.50.

Index Seminum, Anno 1876, Collectorum quæ Hortus Botanicus Chicagoensis pro mutua Commutatione Offert.

Allgemeine Resultate Nach Bezirken und Kantonen betreffend die Trauungen Geburten und Sterbefälle im Jahre. 1876.

Walsh's Physicians' Combined Call-book and Tablet, from 18— to 18—. Third edition. Published by Ralph Walsh, M. D., 326 C. St., Washington, D. C. Price, $1.50.

Walsh's Physicians' Handy Ledger.

The Causes and Geographical Distribution of Calculus Diseases. By Claudius H. Mastin, M.D., of Mobile, Alabama. Extracted from the Transactions of the International Medical Congress. Philadelphia, September, 1876; Philadelphia, 1877.

The General Subject of Quarantine, with particular reference to Cholera and Yellow Fever. By John M. Woodworth, M.D.

Address on Medical Biography, delivered before the International Medical Congress at Philadelphia, Sept. 5, 1876. By J. M. Toner, M.D.

Origin and Progress of Medical Jurisprudence. 1776–1876. A Centennial Address. By Stanford E. Chaillé, A.M., M.D.: A reprint from the Transactions of the International Medical Congress. Philadelphia, September, 1876.

Stricture of the Urethra: When and how shall we perform Internal Urethrotomy? By Claudius H. Mastin, M.D., LL.D., University of Pennsylvania.

Physician's Pocket-Case, Record and Prescription Blank Book, with visiting list. Fourth series, tenth edition. Cincinnati: Robert Clarke & Co. 1877.

Physician's Case Record Ledger. Cincinnati: Robert Clarke & Co. 1877.

Transactions of the Indiana State Medical Society. 1877. Twenty-seventh Annual Session. Indianapolis: Baker, Schundlap & Co., Printers. 1877. 8 vo. Cloth; pp. 169.

The Virus of Venereal Sores; its unity or duality. By Freeman J. Bumstead, M.D.

Transactions of the Texas State Medical Association. Ninth Annual Session. 1877. Jennings Bros., Marshall. 1877.

Treatment of Diphtheria. By E. N. Chapin.

Wood's Physician's Vade-Mecum and Visiting List. Arranged and prepared by H. C. Wood, M.D. Phila. J. B. Lippincott. Price, $1.50.

Scarlatina in Chicago. Particularly the epidemics of 1876-7. By Chas. W. Earle, M.D. Read before the Illinois State Medical Society.

Transactions of the Kansas Medical Society at its Annual Session, held in Lawrence, Kansas, May 9 and 10, 1877.

The Safety of Ships and of those who travel in them. By John M. Woodworth, M. D.

The New Departure in Medical Teaching in the University of Michigan. By A. M. Palmer, A. M., M. D.

The Illinois State Medical Register for 1877-8. Published annually under the supervision of the Chicago Medico-Historical Society, with the co-operation of the Illinois State Medical Society.

Transactions of the Wisconsin State Medical Society. 1877. Milwaukee. Cramer, Aikens & Cramer. 1877. 8vo. Paper, pp. 158.

The Sanitary Condition of Portland. A paper presented to the Maine Medical Association, 14th June, 1877. By Frederick Henry Gerrish, M. D.

Summary.

I. Surgery.

Amputation of the Penis; Transplantation of the Urethra. Wedemeyer. (*Archiv der Heilkunde XVIII.*, 6.)—The ordinary method of amputating the penis is always followed by the great inconvenience that the patient cannot urinate in the erect posture without wetting his clothes. Prof. Thiersch has successfully overcome this difficulty in the following case by transplanting the remnants of the urethra into the perinæum.

In November, 1874, a man 48 years old, greatly emaciated, was admitted into the hospital with an epithelial cancer of the penis. The whole organ, from the urethral orifice to the roof, was the seat of one large ulceration, surrounded by hard, raised and everted margins. The urethra was exposed to the extent of two centimetres; in the inguinal regions existed a number of hard, indolent, enlarged glands.

Under the antiseptic spray the penis was amputated at its root. The cut surface did not exhibit any morbid changes in

the tissues. The profuse bleeding being arrested by catgut ligatures, the stump was secured by a strong catgut loop, and a catheter introduced into the urethra.

From the lower margin of the wound an incision was then carried along the scrotal raphé into the perinæum, thus dividing the scrotal sac into halves. By deepening this incision the surgeon could reach the urethra and dissect it off its surroundings towards the bladder to the length of two centimetres. This movable piece of the urethra was turned down to the perinæum and fastened to it by stitching the mucous lining of the urethra to the external integument. The whole wound was closed by catgut sutures; drainage tubes were put into both angles of the wound; a flexible catheter was kept in the transplanted urethra, and a salicylated dressing applied.

During the convalescence the patient had an attack of erysipelas, which caused his recovery to be rather slow. Still, in January, 1875, he had gained sufficient strength to undergo a second operation. A hard carcinomatous gland in the right inguinal fossa had to be extirpated. All the other indolent glandular tumors had disappeared by this time. In February he was discharged from the hospital. He could then, by raising the scrotum, discharge the urine at an angle of 45 degrees, in the erect posture, without soiling his clothes or his body. A re-examination, made a year later, showed the condition of the transplanted urethra and its satisfactory function still unchanged.

A Peculiar Extirpation of a Kidney. Langenbuch. (*Berliner Klin. Wochenschrift*, 1877. N: 24.) The author describes a highly interesting case of the successful extirpation of a pathologically changed kidney, which was taken for a tumor.

A robust woman, aged 32 years, suffered during one and a half years from heavy pains in the region of the left kidney. Palpation could detect a solid and somewhat movable tumor of six to eight centimetres diameter, sensitive to pressure, apparently situated in or outside of the lumbar muscles. The overlying skin was entirely loose.

It was supposed to be a malignant tumor; not, however, originating in the kidney, as the urine was free from abnormal substances, and the tumor appearing to be located in the muscular tissue. The apex of the tumor reached into the upper muscular layer, to which it was found adherent by cicatricial tissue.

The finger, passing round the exposed tumor, detected a pedicle which was ligated, whereupon the tumor was cut off below the ligature. Suddenly the ligature slipped off; but the expected profuse bleeding did not appear. Only small veins were bleeding. An aperture which could have belonged to a carotid artery emitted no blood, and admitted bougies to the length of 15 centimetres. It was the ureter. The tumor was the kidney, which was changed into a cicatrized sac. The histological examination showed a complete degeneration of the tissues, whose original structure could no longer be ascertained. An inflammatory process, which had destroyed the glandular tissue, was considered the cause of the formation of the sac, but it is difficult to account for the abnormal position in which the kidney was found.

Malignant Osseous Tumor of Inferior Extremity of Femur. —M. LeDentu. (*L' Union Médicale*, Oct. 16, 1877.) LeDentu presented an osseous tumor of the inferior extremity of the femur, to the *Société de Chirurgie* Oct. 10, 1877.

It was the case of a woman of 50 years, of usual health until four and a half years since, when she was first taken with a tolerably sharp pain at the lower end of the femur on a level with the inner condyle; this pain was the only appreciable symptom felt by the patient until Feb., 1875, when a swelling appeared, which made rapid progress during the year 1876, and reached a considerable size in 1877. On entering the hospital Oct. 1st., under the care of M. LeDentu, the tumor measured 25 inches in circumference. The skin covering it was intact, but of a violet color and furrowed by varicose veins. Above the tumor the member was comparatively enlarged. Careful examination with the finger, revealed a deep tumefaction, indicating an osseous tumor. The diagnosis lay between an osteo-sarcoma and an enchondroma.

M. LeDentu at first thought of sarcoma, but finally, after having examined a plate representing a specimen of Dupuytren's, which presented a striking analogy with that of his patient, he changed his mind and regarded it as an enchondroma. It appeared to him that the tumor of his patient had the consistence and elasticity of an enchondroma. Besides, the general state of the patient was not bad; there was no sign of cachexia, except a little leanness which was habitual with the patient; finally, a careful exploration of the internal organs revealed no visceral lesion.

In consideration of these facts, which seemed to remove the idea of a cancerous tumor, M. LeDentu proposed disarticulation of the thigh, which was immediately accepted. The operation was performed by the two flap method, one anterior, the other posterior. Nothing unusual presented. The vessels were seized as cut by the hemostatic forceps, and the ligation of the femoral was reserved for the end of the operation. Toward the middle of the operation, however, the patient, who had been carefully chloroformed, presented symptoms of depression, from which she was brought by means of friction and flagellation.

The operation was then completed; the wound was united by means of three deep sutures and several superficial ones; four drainage tubes were inserted, and finally the dressing of Lister was used with all the minute precautions indicated by its author. Although M. LeDentu regards the case as very grave, yet he hopes, from all these conditions, that the patient may recover.

Examination of the specimen with the naked eye seems to confirm the diagnosis of M. LeDentu. The appreciable characters are those of enchondroma. The cartilaginous element seems to constitute the fundamental part of the tumor. The bone seems to have undergone profound alteration, even to the medullary canal, which is itself far from being healthy. M. LeDentu closed by saying that it was necessary to await microscopic examination, before pronouncing definitely upon the nature of the tumor.

The communication of M. LeDentu gave rise to an interest-

ing discussion, in that it brought out the uncertainty which still exists on the subject of diagnosis and pathological anatomy of tumors, designated under the names osteo-sarcoma, enchondroma, cancer of the bones, etc.

M. Gillette regretted that M. Le Dentu had not dwelt at greater length upon the symptomatology of his patient, in particular on the character of the symptom, pain. In osteo-sarcoma, the spontaneous and the provoked pains are generally very sharp, and permit us to distinguish clinically this class of tumors from those designated as enchondromas, in which the pains are less severe. M. Gillette showed that the articular cartilages, in the specimen of M. LeDentu, remain intact.

M. Honel distinguishes two kinds of enchondroma, the benignant, which has no tendency to become general, and the malignant, which resembles cancer in its tendency to generalization; he thinks that the case of M. LeDentu belongs to the latter; the bone is as profoundly altered as possible, the alteration having reached the medullary canal already, the seat of intense osteo-myelitis. He does not believe that the patient of M. LeDentu can be saved.

M. Duplay thought it impossible to pronounce absolutely upon the diagnosis of the tumor, or the prognosis of the operation, after a simple examination of the specimen with the naked eye. This extremely complex specimen has the characters of sarcoma, of myxoma, and of enchondroma. Whatever it may be, M. Duplay believes it susceptible of early recurrence.

M. Déspres declares it a cancer, and bases his diagnosis upon the age of the patient, the date of the disease, four years, and finally on the general loss of flesh noted by M. LeDentu.

M. Marc Sèe has had occasion to observe at the *Maison Municipale de Santé* a little girl, who had a tumor situated at the upper extremity of the humerus, very close to the scapulo-humeral articulation. The rapid development of the tumor, which had distended, thinned, and inflamed the skin, obliged M. Sèe to disarticulate the member. The results of the operation were at first favorable, but cicatrization was not yet complete when several other tumors developed upon various portions of the head; the affection had become general.

M. Lucas-Championnière had seen a patient treated by M. Guyon with an enchondroma of the thigh, by disarticulation of the member. The patient got well of the operation, but died several months after, of cancer of the lung.

M. Amédée Forget said that under whatever name the tumor was designated, for diagnosis and prognosis, regard should be had, above all, to the clinical characters. For his part, the rapid development of the tumor would have made him fear a malignant tumor, and he would have abstained from interference. It is well to operate, but better still to abstain, when the operation must be fatally followed by recurrence. He asks if there is not in the present state of science, clinical characters indicating to the surgeon whether or not to operate. This point seems to him more important than the determination of the histological differences between tumors, a determination generally sterile in a practical point of view.

M. Nicaise saw a patient, in his service at the temporary hospital, with sarcoma of the leg, who had not experienced any morbid phenomena, except very sharp pain, which came on suddenly while walking, obliging him to stop and be carried home. The tumor appeared at once, and grew rapidly, acquiring in some weeks the large size it had when he entered the hospital. M. Nicaise amputated the leg, but the tumor recurred in the same place before the wound healed. The patient died of a recurrence in the lung.

M. Duplay had also seen a case of sarcoma of the calcaneum, long taken for an osteitis. He amputated, but in less than a year it recurred in the soft parts of the stump.

M. Marjolin thinks we should not hasten to conclude, after these recitals of recurrences after operation, that it is always best to abstain from operating in osseous tumors. We might thus allow patients to die that an operation might save. He remembers an operation he performed in the middle portion of the thigh of a *réligieuse* suffering from an osseous tumor, which distinguished surgeons of the hospitals, Michon, Herneyde Chégoin, and Désormeaux, had judged to be of a malignant nature. Now the operation was performed twenty years ago, and the patient still lives.

M. LeDentu, in answer to the various observations of which his communication had been the object, said that the pain did not offer any character sufficient to distinguish sarcoma from enchondroma, in spite of the affirmation of M. Gillette; as to the general state of the patient, he repeated that he had observed no sign of cachexia; the emaciation which she presented was normal, and belonged to the constitution rather than to the malady; if there had been cachexia he would naturally have abstained from operating. He recognized the gravity of the case. The rapidity of the development obliged him to consider it as malignant. But is that a reason for believing the case incurable, and to leave the patient to die rather than interfere? He did not think so. Science has no certain sign, either histological or clinical, which permits the distinguishing curable osseous tumors from those which are not so. In cases of doubt we should not abstain from operating, lest we allow patients to die, as M. Marjolin has said, which an operation might have saved. M. Marjolin is not the only surgeon who has seen patients get well after operations on osseous tumors regarded as malignant. Such examples are not rare, and he knew of several. In cases of doubt, then, we should act; sometime science may be able to tell in what cases it is best to abstain from operating.

L. W. C.

Ingrowing Toe-Nail,—Dr. A. H. Agard, of Oakland, Cal., contributes to the *Trans. Medical Society, California*, for 1876–7, an interesting paper on this frequently suggested and poorly understood subject, much neglected in the text-books. Neither Fergusson nor Hamilton allude to it; Druitt and Erichsen each give it a paragraph; Holmes, in his *Treatise on Surgery*, gives it twenty lines; Gosselin, in his *Clinical Lectures on Surgery*, devotes nine pages to it; Gross, one.

The toe-nail grows from a matrix which lies in a fold of the skin near its base. In a large majority of cases it comes forward with a thickened recurved margin at either side, which lies in a groove in the soft parts that run from the matrix to

the end of the digit. Thick nails are often provided with recurved margins embedded in deep sulci on the sides of the digits. Dr. A. believes this conformation predisposes to the disease; also that it is often hereditary.

Anything may be an exciting cause that forces the incurved margin to impinge upon the skin lining the bottom of the groove, so as to bruise or irritate the parts. The most fruitful causes are wedging the foot into a narrow, funnel-shaped, stocking, wearing loose boots with high heels, cuneiform shaped toe, or boots too narrow for the foot.

The sulcus on the outer side of the great toe suffers oftenest; the lateral pressure operates first upon the inner and anterior angle of the nail, and the effect is to push the nail outward and to sink the margin deeper into its groove. With the increasing pressure, there is set up in the cuticle an effort to protect the true skin beneath. Epidermic cells are thrown out and left to harden into a protective covering. These, as they are cast off, are held in place by the margin of the nail until they form a hard pad under it, which becomes an offensive mass, having much of the tenderness that belongs to a true corn. The lateral pressure also forces the second upon the margin of the great toe, folding the inner border of the matrix under. This condition becoming permanent, (it is in youth that the disease is contracted) malformation of the nail with true inversion of the border results.

A curious and important point in this connection, is this: In walking, just at the last of each step, the weight of the body is thrown upon the end of the great toe. Especially is this true of the Caucasian who "toes out," but the Indian "toes in" by throwing himself forward in a loping gait, with a spring from all the toes. Place the femurs of an Indian and white man upon the table, resting upon their condyles at their lower end and upon their shafts at the other, the white man's femur will be found to rise but little, while the Indian's gives a very obtuse angle with the surface of the table. Place the head of each bone in its acetabulum, attach the foot and leg, and it can at once be seen what causes the difference in the gait. Not only the weight, but the last act in complet-

ing the step, forces the flexor muscles of this toe into action. But when the lateral expansion of the soft parts is denied, it finds room in the direction of the least resistance, which is at the front of the nail. The nail groove is converted finally into a pocket or pouch, into which the outer angle of the nail is pressed.

One predisposed to this disease, suffers first by a simple itching or tingling, not unlike that of a corn; occasionally severe twinges of pain are felt. Swelling and heat are then discovered, any slight injury causes an ulcer, and intense pain ensues.

In the *first* stage of this trouble, cut the nail short, trim both corners well back, keep the front rasped thin, and avoid exciting causes. If ulceration has taken place, relieve the bottom of the groove and the toe-nail pocket from pressure.

Two plans of treatment are proposed; the one temporizing, the other radical; for the former, remove the toe-nail, which gives relief, till a new one develops; or trim the free border of the nail back to the base, relieving the pressure, but take care to leave no spicula or sharp edges. This operation Dr. A. prefers to the former method, but it must be repeated every few months.

Three methods for radical cure deserve mention.

1. Removal of entire nail and matrix. The objection to this is that it leaves the top of the toe unprotected.

2. Removal of merely the margin of the nail with its matrix. The nail will remain narrower, and the recurring margin never be renewed.

3. Removal of soft parts along the border of the toe, taking away the groove and obstructing the growth of the angle of nail. This least objectionable method is as effectual a cure as removing the nail, but care should be taken to effectually ablate the nail growth and remove the upthrust of indurated tissue anterior to the outer angle. When the deformed matrix sends forward a malformed margin, remove both margin and matrix. In rare cases it may be proper to combine two operations in removal of margin of nail and side toe.

General anæsthesia is unnecessary; local application of

snow, ice, or freezing mixture, is sufficient. When engorgement of tissue is extreme, the hemorrhage may be great, but no harm can follow.

Dr. A. dresses the wound with salicylic acid in substance, using the dry powders; and orders the dressings to be kept wet for a few hours with cold water. Profuse granulations should be repressed, but they do not come up under the use of salicylic acid.

M. E. K.

Instrumental Dilatation of the Rectum for Operative Purposes. W. Hack. *Archiv. fur Klin. Chirurgie.* 1877. Bd. XXI. Hft. 2.—The operation is performed, after the rectum is carefully cleansed, in profound chloroform narcosis. The patients are placed upon the table on their backs, with pelvis elevated, the thighs strongly flexed upon the abdomen. With the well-oiled speculum (Simon used them from 5 to 5½ ctm. in diameter, and from 15 to 17 ctm. in circumference), the rear wall of the rectum is pushed aside; the side walls are held back by a vaginal tenaculum, and the projecting skin of the anus by double hooks, or by a flat speculum. If necessary the sphincter is cut backwards in the raphé, as such incision into the lower end of the rectum facilitates the access to the cavity of the os sacrum. In cases of recto-vaginal fistula, the edges of the fistula are now pared off, if possible transversely; the sutures are partially put in by the means of Simon's needle-holder, and fine Chinese silk; or with Langenbeck's needles, used for staphylorrhaphy.

In the after treatment a strong cathartic was administered by Simon, at least every second day, the method of constipation having proved dangerous. The removal of the sutures is effected through the vagina; the slight formation of pus around the threads had always enlarged the canals of the stitches sufficiently to admit of the passage of the knots. The cases operated upon by Simon present the best proof of the practicability of his method; we can here only speak of them in a few words. The first case was a person with two small vesico-vaginal fistulæ, and a large recto-vaginal fistula. The fistula was unsuccessfully operated upon through the

vagina, whereas the cure was effected by two operations from the rectum; the vesico-vaginal fistulæ were also cured. In a second case, a woman 45 years of age, was cured of a recto-vaginal fistula, which was immovable, and situated 1 ctm. from the orifice of the uterus.

The third case occurred in a woman, 32 years old, who had contracted a recto-vaginal fistula during an attack of typhus, the tube of the injection syringe having perforated an ulcerated place of the rectum. The fistula was cured after an operation through the rectum, only leaving small places of the size of a pin's head, which afterwards healed up under cauterization.

The fourth case is that of a soldier, who had contracted two fistulæ by a gun-shot wound through the bladder and rectum.

The fifth case gives the best proof of the practicability of this method. The patient, 22 years old, suffered from a vesico-vaginal fistula, besides there existed a communication between the bladder and the rectum, and an occlusion of the vagina.

Fat-Embolism Resulting from Rupture of a Fatty Liver. —Hamilton. (*British Med. Journal*, Oct. 6, 1877.) Fat-embolism is a pathological lesion which has been described within the past few years more especially by Zenker, Wagner and Busch. It generally happens that the subject of it has sustained a fracture of bone, or some operation has been performed necessitating the opening of the medullary cavity of a bone. The oil which so escapes into the surrounding parts becomes absorbed by the neighboring blood-vessels and is carried to the right side of the heart, and subsequently to the lungs. Here it gives rise to the most complete capillary embolism, entirely precluding the passage of the blood through the organ, the patient accordingly dying from gradual carbonic acid poisoning. These cases of death in a few hours after a simple fracture of bone, or operation on bone, were, up to the time that this important discovery was made, totally unaccounted for; the patient was generally said to have died from "shock." In the case here reported the oil, which acted as embolon, was derived from an unusual source. The patient

was a lad about fourteen years old, and a sailor. While aloft he slipped and fell a considerable distance onto the ship's deck, alighting on his right side. Although stunned, he soon recovered sufficiently to walk about the deck. In an hour or two afterwards, however, he became very much distressed; his breathing became embarassed, coma ensued, and he died a few hours after the injury. At the post-mortem examination, the liver was found to have sustained a few small ruptures, from which a little blood had flowed, but only a comparatively small quantity. The liver itself, however, was *peculiarly fatty*, and, for a lad of his age, unusually so; whereas the other organs seemed perfectly normal, so that the lungs and kidneys were retained as specimens of healthy organs, and were hardened in chromic acid for microscopic examination.

In due time, sections were made of the lung and kidney, and in order to bring out their outlines more prominently, a half per cent. solution of perosmic acid was employed as a staining re-agent. The most extraordinary appearance was revealed by this means in the lung. The whole of the middle and smallest sized arteries were found to be plugged with oil, which now had a black color, owing to the action of the perosmic acid. Even the minutest capillaries were completely choked up with oil. The oil was generally in one large elongated mass, occupying the lumen of the vessel for a considerable distance, or it was in drops of various sizes closely aggregated together. Similar embolisms were detected in the kidneys, but only in small number.

II. Therapeutics.

Effects of Sulphate of Atropia on the Nervous System.—Sidney Ringer. (*Journal of Anatomy and Physiology, from Edinburgh Medical Journal*, July, 1877.) From his experiments, Ringer concludes that the late occurrence of tetanus in atropia poisoning, is not due to paralysis of the motor nerves, but that it is owing to the cord being slowly affected. It appears that whilst the poison very quickly paralyzes, it takes many

hours, or even days, before it tetanizes. He also concludes that atropia paralyzes much more through its depressing action on the spinal cord than on the motor nerves, and that it has a direct paralyzing action on the cord, and does not affect it through its depressing action on the circulation. In atropia we have a drug which quickly paralyzes the reflex functions of the cord, but requires a much longer time to diminish the resistive power of the cord; hence, paralysis precedes, and may even disappear, some hours before the onset of tetanus.

Bromide of Arsenic in the Treatment of Nervous Diseases.—Clemens. (*Allg. Med. Central-Zeitung.*) Cl. states that he has obtained astonishing results with bromide of arsenic in the treatment of diseases of the nervous system, and especially epilepsy. The following is the formula which he thinks should replace Fowler's solution: Pulv. arsenic alb., potass. carb., aa 3j.; coque cum aq. dest., ℔. ss. ad solut. perfect.; aq. evaporat. adde aq. dest., ℥xij.; brom. pur. 3ij. refrigerat. S. arsenic bromatum. Of this he gives one or two drops in a glass of water once or twice daily. This dosage may be continued for months, or even years, without producing any unpleasant effects. In only two cases of epilepsy did he effect a complete cure, but in all the cases, marked relief was obtained. In connection with the bromide of arsenic an almost exclusively meat diet is advised. The patients should be as much as possible in the open air. Unlike the bromide of potassium, the arsenical salt does not require to be given in increasing doses, and, instead of interfering with digestion, improves the nutrition and strength.

Action of the Salts of Silver on the Muscular and Nervous Systems.—Curci. (Giornal. Veneto di Scienze, from *Edinburgh Med. Journal*, July, 1877.)

In a series of experiments on the action of silver on the muscular and nervous systems, Curci used one part of chloride of silver, three parts of hypophosphite of soda, and thirty of distilled water. Administered thus, silver does not irritate the skin or mucous membrane. Injected subcutaneously, it pro-

duces slight inflammation and œdematous swelling, but is easily absorbed, and does not coagulate the blood. Curci concludes that it acts on the sensory nerves, and through them on the posterior column of the cord. It first stimulates them and increases sensibility to pain, raises reflex excitability, and extends its action to the motor portion of the cord, producing tetanus and increased muscular tone. It increases muscular irritability, and paralyzes secondarily the sensory nerve-centres, especially the respiratory centre. At length it annihilates reflex excitability, respiration and circulation cease, and the heart remains in a state of diastole. C. thinks that these results show the inefficacy of silver in the diseases for which it has been hitherto in repute—myelitis, paralysis agitans, and locomotor ataxy. Where there is softening or induration, proliferation of connective tissue, and destruction of nerve-elements, and where the muscular tone is weakened, no good action can be expected from a medicine which itself produces these conditions. Silver may be used beneficially in cases of epilepsy which depend on excessive irritation of the spinal cord, but it exerts no effect in those due to anatomical lesions. In hysteria it is useless, but is beneficial in chorea. Its administration in nervous asthma may be attended with excellent results, and as it reduces the irritability of the respiratory centre, it would most probably be especially useful in cases attended with spasm of the inspiratory and bronchial muscles.

Medical News and Items.

The Illinois State Board of Health has issued the following circular which will explain itself.

Chicago, Nov. 10, 1877.

To the Medical Profession of Illinois:

To facilitate the obtaining of the Certificates for Practice issued by this Board, and the registration of births and deaths, required by State law, the following information is furnished:

All persons (whether male or female) practicing medicine, in any of its departments, in this State, are divided into two

classes. First, practitioners who have been practicing medicine ten or more years, within this State. Second, those who have been practicing medicine in this State for a period of time less than ten years, from July 1, 1877.

This second class is divisible into two sections: First, those who can furnish satisfactory proof of having received diplomas as graduates in medicine; or licenses, from some legally chartered medical institution in *good standing*.

Second, those who are practicing medicine in any of its departments, who have neither a diploma or license, (and who are required by law to undergo examination by the State Board, for its certificate entitling them to practice medicine and surgery in the State of Illinois.)

Section four of the State Board of Health Act, requires that all physicians and midwives, without any exception, practicing in this State, shall register their names and postoffice address with the County Clerk of the county where they reside. This is now being enforced, and the signatures of all are required.

Physicians are likewise required to have recorded in the office of the County Clerk, the Certificate which may be received from the State Board of Health; and, in case of removal to another county in the State, to have the certificate recorded in that county also.

In case a physician practices in another county, or counties, in this State, adjoining the one in which he lives—he having recorded his Certificate in the county in which he lives—it will not be required of him to place his Certificate upon record in the other county or counties; but he must register his name, also, in the county or counties in which his practice extends, and make his returns of births and deaths occurring in those counties to the respective County Clerks. No such registration will be required in cases of professional consultation with resident physicians.

Physicians residents of adjoining States, who practice in this State in counties adjoining the one in which they reside, are required to take out Certificates of Practice, as required of residents of this State, and record the same in the office of County Clerk of the county or counties in which their practice extends,

and to make returns of births and deaths in those counties to the County Clerk, and in every respect conform to all the requirements of the law upon residents of this State.

Certificates will, when desired, be issued to non-graduates of ten or more years practice in this State, on their affidavit of such practice, supported by evidence of good standing in a medical society, or the recommendations of reputable professional or other men, who have known them during their term of practice.

These Certificates are different from those granted to graduates, and are issued at the discretion of the Board.

Applications for Certificates, or for blank affidavits, or for appointments for examinations, may be made to the President, Dr. J. H. Rauch, 202 State street, Chicago. Diplomas, or licenses, and affidavits properly filled out and acknowledged, together with the fees for certificate, may be sent to the same office.

For convenience, diplomas, licenses, affidavits and fees may be sent from their immediate neighborhood to H. Wardner, M. D., Cairo; W. M. Chambers, M. D., Charleston; J. M. Gregory, LL. D., Champaign; N. Bateman, LL. D., Galesburg; and A. L. Clark, M. D., Elgin.

A special form of blank affidavit has been prepared for those who have lost their diplomas or licenses by fire or otherwise, and may be had upon application.

It is not required that the ten years of practice in this State shall be consecutive years; but the sum total of practice in this State must amount to ten years, from and before July 1, 1877. No allowance is made for the time in practice in any other State, or service in the army.

Certificates of graduation will be issued to graduates who have practiced medicine ten or more years in this State, upon their making an affidavit to that effect, at the same time giving name of College, place and date of graduation, without their being required to send diploma to the Board for verification, by paying the usual fee. It is not obligatory upon this class of practitioners to take out a Certificate.

In view of possible legal questions in practice, it will, no doubt, be better for all who can obtain Certificates to do so.

Owing to the fact that many of those who have been in practice over ten years supposed that nothing at all was required of them, the Board addressed a communication to Hon. J. K. Edsall, Attorney General of the State, asking what construction the Board should put upon this part of the Act, and their duty. His reply was as follows:

"The proviso in question is in these words: '*Provided*, that the provisions of the Act shall not apply to those who have been practicing medicine ten years within the State.' I have no question that the effect of this proviso is to exempt all persons who fall within its terms, from the penalties imposed by the Act in question. But, considering the entire scope of the Act, I am of the opinion that the duty is incumbent upon your Board to ascertain, as far as practicable, the names of all those who are entitled to the benefits of that proviso; and that it is the duty of those who have thus practiced medicine ten years within the State to furnish you, on request, evidence of the fact by affidavit, or otherwise. Your Board may, with propriety, issue in return some proper certificate, which will show their right to practice under that proviso of the law."

All therefore who claim exemption from the penalties of the Act, in consequence of the fact of their having practiced medicine in this State for ten years previous to July, 1, 1877, and who have not procured Certificates, will be called upon by the Board, after December 31, 1877, to make affidavit to that effect, and file the same with the Board, thus establishing their status legally.

In regard to practitioners of medicine who have been practicing in this State less than ten years, the law requires that those who are graduates in medicine, or who have licenses from legally chartered medical institutions in good standing, must actually present, for verification, to the State Board, their diplomas or licenses, and, in addition, such other satisfactory proofs as may be necessary. Affidavit must be made that the person presenting the diploma, or license, is the lawful possessor of the same. Graduates may present their diplomas or licenses, and affidavits by letter or proxy. The affidavit should mention date and place of graduation, and

name of medical college; length of practice in this State, as well as present place of residence.

The fee for certificates of graduation is fixed by law at one dollar.

Certificates of Graduation must be recorded in the office of the County Clerk. In fact, it is better that all Certificates issued by the Board should be so recorded.

It is required by law that all persons practicing medicine less than ten years in any of its departments, who are not graduates in medicine or licentiates, shall be examined directly by the Board, and then Certificates will be issued to those passing the examination. The Certificate is to be recorded in the office of the County Clerk. Candidates for examination are required to pay a fee of five dollars, in advance—to be returned to them if the Certificate be refused.

Examinations may be, in whole or in part, in writing, or orally; and shall be of an elementary and practical character, but sufficiently strict to test the qualifications of the candidate as a practitioner.

Meetings of the Board, for the examinations of candidates for Certificates of practice, and for the verification of diplomas and licenses, and taking of affidavits, are appointed for the following dates and places:

GALESBURG—Thursday, December 6th, beginning at 10 A. M., at the Union Hotel.

CHAMPAIGN.—Thursday, December 20th, beginning at 10 A. M., in the parlors of the Industrial University.

SPRINGFIELD.—Thursday, January 10th, 1878, at 10 A. M., at the State House (the regular annual meeting).

Meetings for examination will also be held at Charleston and Chicago, in January, and other points, the location to be determined by the proximity of applicants, as the Board does not wish to cause any unnecessary loss of time to candidates for examination. The dates of these meetings will be duly announced.

Practitioners who are required by law to be examined—namely, those who have neither a diploma or license, and have practiced medicine in this State less than ten years, must pre-

sent themselves in person before the Board. No examination papers can be sent out to individuals; and no examination can be limited to any one or two special topics, or branches of study or practice. The examinations will be conducted by the entire Board, and upon all branches usually taught in medical schools.

Questions relating to special methods or forms of practice, or therapeutics, will be referred for examination to the various individual members of the Board, as may be indicated.

A proper and reasonable regard and respect will be paid to the personal and peculiar views of practice, if any such there should happen to be, of the candidates presenting themselves for examination.

Candidates for examination must fill out a blank form, which may be obtained on application. This must be sent to the office of the Board, and, if approved, they will be notified to appear for examination.

The forms pertaining to the State system of registration of births, deaths, and marriages, are now prepared, and on and after December 1st, registration will be enforced. It is to be hoped that there will be a prompt and cheerful compliance with this, one of the most important sanitary and civil measures ever inaugurated in this State.

Much time and correspondence may be saved by applicants stating their cases clearly and succinctly.

No certificate will be issued until the fee of one dollar is paid in advance. It will also be remembered that the finances of the Board are exceedingly limited, and correspondents will please see that the postage is fully prepaid on their communications. It is much better that diplomas sent to the Board for verification be forwarded by express than by mail. The office of the Board, for the present, is at Chicago.

The hearty coöperation of all medical practitioners in good standing is expected. It is not alone a duty they owe to the people, but a matter of interest to themselves, as it is the determination of the Board to protect and advance the legitimate practitioner.

"College of Physicians and Surgeons, City of Keokuk, Iowa."—The leading announcement of the medical schools of this country is issued by the college bearing the above name. Its announcement "leads" in several particulars. It "leads," for instance, in pretentiousness, it "leads" in magnificence of proof-errors, it "leads" in extreme economy of expense incurred in its production, it "leads" in the horrible taste displayed in a three-inch cut, most diabolically executed, affording a "view of one of the college dissecting rooms." The cut represents an apartment "over 50 feet in length," containing eight tables, an old pewter injecting syringe of the pattern used sixty-five years ago, a student at a table, a demonstrator, presumably on foot, "attitudinizing" for a photograph, a janitor, a blown-up, shriveled gut on a gas-pipe, eight cadavers in various stages of disappearance, one of them in a position for perineal dissection, with a urethral sound *in situ*, two skulls, a dead baby, and an infinitude of cracks in the floor. The announcement "leads" in other particulars: in general information, for example, concerning the city of Keokuk itself. We are informed that Keokuk is "one of the most beautiful cities in the Mississippi Valley;" that "it is the location of the great ship canal around the Des Moines rapids of the Mississippi, which has been formally opened" (evidently the canal is here meant), "and has cost our government over four millions of dollars,"—both of which items of general information are of incalculable value to the student attending lectures in the College of Physicians and Surgeons, City of Keokuk, Iowa. The announcement "leads" also in the variety of text-books recommended, which "may be purchased at reasonable prices at the extensive bookstores of our city"—(prices are, of course, not "reasonable" at "the bookstores of our city", which are not "extensive"). Here are recommended, *e. g.*, "*Cruolhier's*" Anatomy, "*Kliss*'" Physiology, "*Bartholind's*" Materia Medica, "*Cazeau's*" Obstetrics, "*Deon's*" Medical Jurisprudence, "*Rockatansky's*" Pathological Anatomy, and other books too numerous to mention.

The particular, however, in which this document "leads" is in the announcement of the virtues of the college in question,

which announcement is without parallel in this or in any other country of the globe, in the stupendousness of its disregard for the ways of good grammar. Copies of this announcement should be forwarded at once to the various university historical libraries of the country, not forgetting that of the Surgeon General's office, for preservation and future reference.

After announcing in hackneyed terms "the continued prosperity and success of the Institution," we are treated to this grammatical effusion :

"No words of ours can be half so convincing to the physician or medical student, who wishes to attend a course of medical lectures, of the usefulness and success of the Institution, than by reference to our one thousand Alumni, whose names are herewith presented, and whose medical reputation and influence is felt throughout the entire Northwest."

We are informed that the faculty at Keokuk can "look off and lecture without notes;" that they deliver "*extemporaneous lectures*," and this is why such lectures are an advantage : "Years of experience has proved the great advantage of *extemporaneous* lectures over those *written and read* before the medical student." We are also informed "that the College of Physicians and Surgeons offer greater inducements to the student, and at less cost, than any other regular Institution in the country." We learn here also that an "*Ad Euendum* Degree" is conferred when occasion requires.

Enough is as good as a feast. More quotations from this remarkable announcement might discourage the publication of others. We trust that no one will impudently suggest that the Trustees of the "College of Physicians and Surgeons, City of Keokuk, Iowa," add a Professor of Grammar and Rhetoric to their Faculty.

Walsh's Physicians' Call-Book, and Handy Ledger.—The *Call Book* has reached its third edition. The astonishing rapidity with which it has become a great favorite with the profession is the best proof of its merits. The *Handy Ledger* is another proof of Dr. Walsh's knowledge of the practical needs of the profession. Physicians, as a rule, are not very good business men nor have they the time requisite to keep their

account books in a business-like manner. The *Handy Ledger* now offers a system of book-keeping so simple, yet complete, that the busiest physician needs but a few minutes per day to keep his accounts posted up.

The call-book costs $1.50; the ledger, $2.50; both can be obtained of R. Walsh, M. D., 326 C street, Washington, D. C.

The Illinois State Medical Register for 1877–8 is now ready, and can be obtained for one dollar and fifty cents by applying to Mr. W. T. Keener, 63 and 65 Washington street, Chicago.

The *Chicago Medico-Historical Society*, which has hitherto published an annual directory of Chicago physicians, has enlarged the scope of its work, and with the coöperation of the Illinois State Medical Society, issued a register of regular physicians in the entire State. The publication committee does not claim that the list comes any where near perfection, as in a first attempt at compiling such a list "the omission of worthy names and the admission of unworthy ones, are defects always unavoidable." The committee, therefore, solicits criticism and suggestions, by which the next edition could be improved.

Besides the list of physicians, the volume contains a great deal of valuable information; *e. g.*, Code of Ethics of the American Medical Association; Constitution and By-laws of the Illinois State Medical Society; complete list of the National, State, and County Medical Societies; A Directory of the Charitable and Benevolent Institutions, Hospitals and Dispensaries in Illinois; and a Digest of the Laws of the State of Illinois, and of the Ordinances and regulations of the City of Chicago, relating to public health and interesting the medical profession.

TO OUR SUBSCRIBERS.

With the conclusion of this volume expires the period of subscription of most of the names on our list. We shall be under obligations to those of our friends who will promptly remit to us their favors, either for the entire year or for the volume which will be concluded with the number of June, 1878.

We beg leave to call attention to the necessity of prompt remittances, as we can thus estimate for the future in such a way as to greatly improve the character of the JOURNAL.

OFFICIAL LIST of Licentiates of the Illinois State Board of Health who have qualified since the last announcement made in this JOURNAL:

COOK COUNTY.

Burrell, C. W.		Chicago Medical College, March 12, 1872
Clark, A. B.,	Chicago	Chicago Medical College, March 21, 1876
Byford, Henry T.,	Chicago	Chicago Medical College, March 13, 1873
Park, Roswell,	"	Chicago Medical Chicago, March 21, 1876
Dyas, Geo. K.	"	Chicago Medical College, March 21, 1869
Bottomley, B. H.	"	Medical Department, Lind University, March 3, 1863
Sterl, Alexander,	"	University of the City of N. Y., March 5th, 1866
Braun, Louis,	"	Rush Medical College, Feb. 15, 1876
Smith, A. W..	"	Eclectic Medical Institute, Cin. O., May 21, 1872
McElray, P. H.,	"	Rush Medical College, Feb. 1, 1871
Seiffert Rudolph,	"	University of Vienna, Austria, Feb. 13, 1852
Hutchinson, Jas. M.	"	Chicago Medical College, March 3, 1867
Hooper Henry	"	Harvard Medical College, June, 1869
Cole, Harlan P.,	"	N. Y. Homeœopathic Medical College, March 3, 1872 Chicago Medical College March 14, 1871
Johnson, H. A.,	"	Rush Medical College, Feb., 1852
Williams, T. D.,	"	Hahnemann Medical College, Chicago, Feb. 23, 1871
Fellows, H. B.,	"	Western Homeo College, Cleveland, March 1, 1861
Ogden, E. J.,	"	The University of the City of N. Y. March 9, 1855 The Victoria College, Coburg, Canada, July 5, 1855
Ogden, Milton D.,	"	The Hahnemann Medical College, Chicago, Feb. 28, 1862
Wilder, F. M.,	"	The University of Michigan, March 25, 1868
Dexter, Ransom,	"	The University of Michigan, March 26, 1862
Copp, B. D.,	"	Rush Medical College, Feb. 1, 1871
Henrotin, F.,	"	Rush Medical College, Feb. 1, 1868

Degeller, John, " .....The University of Munich, Bavaria, June 9, 1864
Dovelittle, W. H. " .....Rush Medical College, Feb. 15, 1876
Root, D. S., " .....: ....Rush Medical College, Jan. 25, 1867
Hall, Robt. T., " .....Rush Medical College, Jan. 17, 1872
Ware, Lyman. " .....Chicago Medical College, March 1, 1866
Wanzer, Hiram, " .....The Lind University, Chicago, March 12, 1861
Henry. C. P., " ....The University of Berlin, Prussia, July, 1859
Flood, John, " .....Bennett Elec Medical College, Chicago, Jan. 26, 1873
Jenner, Herman, " .....The University of Munich, Bavaria, March 6, 1875
Twining, S. D., " .....The Medical Department, Yale College, Jan. 14, 1864
Hunt, William C. " ....Rush Medical College, Feb. 22, 1852
Bluthardt, T. J. " ....The Lind University, Chicago, March 4, 1861
Baldwin, H. N., " .....Hahnemann Medical College, Chicago, Feb. 22, 1877
Kelly, F. W. " ..... { The Medical Dep't University of Vermont, ... Burlington, Vt., March, 1860
Baker, Sibelia F. Chicago ....Female Medical College, Philadelphia, Pa., March 12, 1870
Duncanson, A. A.. " ....Western Homeopathic Med. Coll. Cleveland, Mar. 10, 1858
Drake. Thos. B., " .....Albany Medical Collega, Albany, N, Y., June 7, 1857
Young. Henry N., " .....Jefferson Medical College, Philadelphia, March 8, 1856
Stockham, G. H., " ....Eclectic Medical Institute, Cincinnati, Ohio, March 2, 1856
Taylor, W. W., " ....University of Louisville, Ky., March 31, 1871
Fisher, John C., " ..Long Island College Hospital, Brooklyn, N. Y., June 22, 1876
Fredigke, J. G., " .....Chicago Medical College. March, 5, 1867
Dodge, Lewis, " ..Homeopathic Medical College of Peunsylvania, March 2, 1850
Bailey, Samuel G., " .....Jefferson Medical College, Philadelphia, March 20, 1844
Fischer, Gustavus " .....University of Prague, Bohemia, April 1, 1871
Willard, Geo. E., " .....Chicago Medical College, March, 10, 1874
Wolgamott, Geo. W.," .....University of Iowa, Keokuk, Iowa, Feb. 21, 1861
Strong, Albert B., " .....Rush Medical College, Jan. 17th, 1872
Taylor, Theo. T., " .....Keutucky School of Medicine, Louisville, March 1, 1869
Martin, William, " ....Chicago Medical College, March 5, 1867
Roler, E. O. F., " ..... Rush Medical College, Feb. 16, 1859
Hulett, S. Eugene, " .....Hahnemann Medical College, Chicago, Feb. 10, 1876
Kerler, C. L., " .....University of Vienna, Vienna, Austria, April 23, 1854
Adama, Andrews, " .....The University of Heidleberg, Germany, May 4, 1856
Chapman, F. M., " .....Bennett Eclectic Medical College, Feb. 21, 1877
Bassett, George R., " .....Bennett Eclectic Medical College. Feb. 21, 1877
Champlin. A. H., " ....The University of Michigan, March 31, 1869
Heymann, H., " .....University of Bonn, Prussia, Aug. 18, 1860
Nelson, Daniel T., " ....Harvard Medical College, March 8, 1865
Chaffee, John B., " .....McDowell Medical College, St. Louis, March 20, 1861
Otto, Joseph, " ....Rush Medical College, Jan. 25, 1865
Hempstead. Chas. W., Chicago .....University of Pennsylvania, April 2, 1852
Ulrich, Julius, " .....University of Vienna, Austria, Aug. 15, 1847
Peak, Orin, Oak Park..... ... .University of Michigan, March 30, 1854
Tucker, Dexter, M., Chicago.....Harvard Medical College, March 4, 1852
Otto, Joseph P., Irondale..... .....Chicago Medical College, March 13, 1873
Jewell, J. S., Chicago.....Lind University, Chicago, March 11, 1860
Hathaway, R. W., " .....Syracuse Eclectic Medical College, March, 1850
Hobart, H. M., " .....Hahnemann Medical College, Chicago, Feb. 10, 1876
Blanchard, Wallace, Chicago.....Chicago Medical College, March, 1869
Gibbs, Lucius O., " .....Bennett Eclectic Medical College, May 20, 1872
Dyas, W. G., Chicago.....The Royal College of Surgeons, Dublin, Jan. 7, 1845
Quinlan, C. H., " ....Rush Medical College, February, 1865
Van Doozer, B. R., Chicago.....Chicago Medical College, March 12. 1868
Piero, F. L., " .....University of Vermont, Burlington, Vt., May 15, 1866
Mauro, Andrea, " .....University of Naples, Naples, Italy, Sept. 5, 1861
Bate, John, " .....Bennett Eclectic Medical College, March 2, 1876

Davies, W. H.,	"	.....The Eclectic Medical College, Cincinnati, Feb. 14, 1865
Dodge, David,	"	.....The Columbian College, D. C., March 2, 1841 .....Rush Medical College, Jan. 20, 1871
McCarthy, William	"	..... The McGill Medical College, Montreal, May 3, 1687
Meloney, William B.,	"	.....The University of Michigan, Ann Arbor, March 20, 1864
Morey, A. C.,	"	. ...Jefferson Medical College, Philadelphia, March. 7, 1857
Skelton, Elizabeth D.,	"	The Woman's Hospital Med. College, Chicago, March 2, 1875
Hurlbut, H. N..	"	Licentiate of Ashtabula College, Ohio Med. Soc., Feb. 25, 1331; The Willoughby University, Willoughby, O., Feb. 20, 1840
Bottsford, Harriette A.,	"	.....Female Medical College, Philadelphia, March 12, 1875
Davies, Charles G.,	"	....The University of Virginia, Charlottsville, July 3, 1873 .....and Missouri Medical College, March 11, 1874
Fry, Isaac H.,	"	... .Chicago Medical College, Chicago, March 21, 1876
McArthur, R. D.,	"	....McGill University, Montreal, Canada, May 3, 1867
Ely, Charles Franklin,	"	N. Y. Homeopathic Medical Coll., N. Y. city, March 11. 1877
Harcourt, Luke A.,	"	....University of Buffalo, N. Y., Feb. 25, 1868
Wisner, Sarah D.,	"	Hahnemann Medical College, Chicago, Chicago, Feb. 4, 1877

OTHER COUNTIES.

Chapman, P. E., Sigel, Shelby.....Louisville Medical College, Feb. 28, 1873
Dunn, L. D., Moline, Rock Island.....Rush Medical College, Feb. 18, 1857
Klingberg, A., Moline, Rock Island.....Rush Medical College, Feb. 3, 1869
Morey, J. W., Moline, Rock Island..... ...Rush Medical College, January 25, 1867
Davison, J. B., Moline, Rock Island.....Jefferson Medical College, Phila., March 7. 1868
Ellis, D. E., Belvidere, Boone.....Geneva Medical College, Geneva, N. Y., Jan. 24, 1843
Scott. Charles, Belvidere, Boone..... ..Rush Medical College, February 16, 1865
Ehrlich, H. R., Lincoln, Logan.....College of Phy. & Sur., Keokuk, Iowa, Feb. 20, 1872
Miller, George H., Galena, JoDaviess.....Rush Medical College, February 17, 1874
McPherson, J. B., Gilman, Iroquis .....University of Edinburgh, Scotland
Brockhart, Louis, Majority Point, Cumberland.....Rush Medical College, 1858
Eskridge, J. H., Majority Point, Cumberland...Rush Medical College, February 15, 1876
Trabue, J. W., Shipman, Macoupin.....Rush Medical College, February 21, 1855
David, Cyrenius A., Sheridan, LaSalle.....Rush Medical College, February 3, 1869
McCaudless, W. L., Perry.. .....Rush Medical College, January 17, 1872
Merrick, G. C., Manteno, Kankakee..... .....Rush Medical College, February 20, 1851
Mitchell, R. J.. Girard, Macoupin.... ....Rush Medical College, February 1, 1871
Macklin, George M., Waterman, DeKalb.....Rush Medical College. February I, 1871
Jay, Hollis, Makena, Will.....Cincinnati Eclectic Medical College, April 4, 1859
Johnson, Wm. C., Springfield, Sangamon. .....Rush Medical College, February 3, 1869
Green, George, Bristol, Kendall.....Rush Medical College, February 2, 1870
Ralph, John B., Rock Falls, Whiteside.....Rush Medical College, February 3, 1869
Ray, Robert B., Fairmount, Vermilion,.. .....Rush Medical College, February 15, 1870
McVey, Rich'd E., Waverly, Morgan.....Rush Medical College, February 25, 1861
Morse, Simon P., Cambridge, Henry..... Rush Medical College, February 2. 1870
Kinnear, A. H., Metamora, Woodford.... .....Rush Medical College, January 27, 1864
Koch, Charles L., Quincy, Adams.....Rush Medical College, February 27, 1877
Kerr, Charles, Pawnee, Sangamon.....Rush Medical College, January 25. 1865
Bartlett, A. I., Virden, Macoupin.....Rush Medical College, February 4, 1862
Barry, E. L. H., Jerseyville, Jersey.....Rush Medical College, February 15, 1860
Brown, Wm. C., Geneseo, Henry... .....Rush Medical College, February 25, 1861
Wilson, Benj., Chambersburg, Pike.....Rush Medical College, February 18, 1857
Clarke, Wesley, Dix, Marion.....Rush Medical College, January 25, 1867
Wheeler, M. S., Auburn, Sangamon..... .Rush Medical College, February 5, 1868
Elder, S. S., Farm Ridge, LaSalle.....Rush Medical College, January 25, 1865
Cochran, W. G., Farmer City, De Witt.....Rush Medical College, February 3, 1869
Clark, A. L., Elgin, Kane....Eclectic Medical Institute, Cincinnati, O., February 6, 1861
Harris, H. L., Fossland, Champaign.....Rush Medical College, February 16, 1875
Hurd, D. L., Earlville, LaSalle...Bennett Ecclectic Med. College, Chicago, May 26, 1870

Newkirk, G., Washburn, Woodford.....Rush Medical College, February 5, 1868
Taylor, John J., Streator, LaSalle.....Rush Medical College. January 25, 1867
Tebo, George H,, Mt. Sterling, Brown.....Rush Medical College, January 17, 1872
Tweddale, James, Washburn, Woodford .....Rush Medical College, February 3, 1869
Smith, E. R., Edgington, Rock Island..... ...Rush Medical College, February 15, 1876
Stetson, J. R., Sheffield, Bureau..... Rush Medical College, February 2, 1870
Drennan, D. A., Springfield, Sangamon.....Rush Medical College, February 16, 1875
Farrar, L. B., Paxton, Ford.....Berkshire Medical College, November 8, 1848
Farrar, Laura E., Paxton, Ford.....Hahnemann Medical College, Chicago, 1872
Pomeranc, Marx, Huntley, McHenry..The University of Wirceberg, Bavaria. Apl. 1, 1866.
Johnson, J. P., Peoria, Peoria.....The Ohio Medical College, March 1, 1859
Lucas, B. C. K , Peoria, Peoria.....The Long Island Col. Hosp., Brooklyn, June 24, 1875
Brown, J. L., Peoria, Peoria.....Ohio Medical College, Cincinnati, O., March 2, 1868
Mitchell, J. A., Peoria, Peoria....Jefferson Medical College, Philadelphia, March 10, 1872
Lucas, George L., Peoria, Peoria.....Jefferson Medical College, Phila., March 6, 1852
Du Mars, R. A., Peoria, Peoria.....Med. Dept. University of Penna., March 12, 1876
Ballou, N. E. Sandwich, DeKalb..... ...Berkshire Medical College, Nov. 10, 1846
Gatchell, H. P., Jr., Highwood, Lake.. ...Hahnemann Med. Col., Chicago, Feb. 3, 1875
Lingood, John R., Rossville, Vermilion.....University of Penna., March 13, 1873
Knapp, James B., Bardolph, McDonough.....University of Buffalo—no date
Molitor, Nickolaus J., Somonauk, DeKalb.....Rush Medical College, July 1, 1869
Barnett, Charles F., Bunker Hill, Macoupin.....Rush Medical College, January 21, 1863
McPherson, M. C., Polo, Ogle.....Rush Medical College, January 17, 1872
Secord, James K., Elmwood, Peoria..... ....Rush Medical College, January 25, 1867
Dafoe, P. V. R., Elmwood, Peoria.....Victoria Med. Col., Ont., Canada, March 4, 1864
Thompson, Wm., Elmwood, Peoria..Bellevue Hosp. Med. Col., N. Y. City, March 1, 1874
McLean, John, DuQuoin, Perry.....Rush Medical College, January 1, 1863
Lake, Leonard L., Belvidere, Boone.....Rush Medical College, February 18, 1847
Williamson, George, Belvidere, Boone.....Rush Medical College, February 3, 1869
Felker, John B., Amboy, Lee.....Rush Medical College, February 15, 1860
Sikes, H. B., Bardolph, McDonough..... .....Detroit Medical College, July 10, 1872
Saunders, R. A., Galesburg, Knox.....St. Louis Medical College, March, 1849
Gibson, Robert, Alton, Madison.....Missouri Medical College, March 4, 1875
Rafferty, T. A., Robinson, Crawford.....Ohio Medical College, March 1, 1869
Thomson, Jno. S., Robinson, " .....Rush Medical College, Feb. 19, 1873
Ferguson, S. T., Minooka, Grundy ..... " " " Jan. 25, 1865
Henry, Robt. F., Princeville, Peoria..... " " " Feb. 16, 1853
True, Chas., Chatsworth, Livingston... ..... " " " Jan. 24, 1865
Holgate, James, Castleton, Stark ..... " " " Feb. 3, 1869
Wright, Nehemiah, Chatham, Sangamon..... " " " Jan. 25, 1865
Woods, D. L., Streator, LaSalle..... " " " Feb. 5, 1868
Chenoweth, C., Decatur, Macon.....Rush Medical College, Feb. 3, 1869
Chenowith, W. J. " " .....University of Louisville, March 3, 1853
Stephens, B. J., Mt. Morris, Ogle,.....Rush Medical College, Feb. 7, 1850
Marshall, N. R. Clifton, Iroquois.....Rush Medical College, Jan. 26, 1867
Ross, B. F., Cobden, Union..... ..Rush Medical College, Feb. 17, 1858
Donaldson, H. C., Morrison, Whiteside.....Rush Medical College, Feb. 20, 1831
Brumagim, R. J., Morrison, Whiteside.....Castlebon Medical College, Oct. 25, 1846
Taylor Samuel, Morrison, Whiteside.....Cleveland Medical College, Feb. 22, 1844
Richings, Chas. H. Rockford, Winnebago.....Rush Medical College, Feb. 12, 1849
Kreider, Wm. L., Aaron, McDonough.....Rush Medical College, Feb. 16, 1859
Kreider, Henry W., Aaron, McDonough.....Rush Medical College, Feb. 20, 1856
Davis, A. P., Paris, Edgar..... ....Rush Medical College, Jan. 25, 1867
Ramsey, Geo. W., Putnam Co.....Rush Medical College, Feb. 15, 1876
Dubler, W. H., Windsor, Shelby.....Rush Medical College, Jan. 25, 1865
Brunk, Chas. H., Windsor, Shelby..... .....Rush Medical College, Jan. 25, 1865
Hilsabeck, W. F., Windsor, Shelby.....Rush Medical College, Jan. 17, 1872
Thompson, S. C., Cedarvilie, Stephenson.....Rush Medical College, Jan. 17, 1872

ANNOUNCEMENTS FOR THE MONTH.

SOCIETY MEETINGS.

Chicago Medical Society—Mondays, Dec. 3, 17 and 31.
Chicago Society of Physicians and Surgeons—Mondays, Dec. 10 and 24.

CLINICS.

MONDAY.

Eye and Ear Infirmary—2 to 4 P. M., by Prof. Holmes and Dr. Hotz.
Mercy Hospital—2 to 3 P. M. Surgical, by Prof. Andrews.
Rush Medical College—1:30 P. M. Medical, by Dr. Bridge.
County Hospital—8 P. M. Necropsy, by Dr. Danforth.
Woman's Medical College—3 P. M. Surgical, by Prof. Owens.

TUESDAY.

County Hospital—1:30 P. M. Medical, by Prof. Bevan; 2:30 P. M. Surgical, by Dr. Bogue.
Mercy Hospital—2 P. M. Medical, by Prof. Hollister.
Eye and Ear Infirmary—2 P. M. Prof. Jones.

WEDNESDAY.

County Hospital—1:30 P. M. Gynecological, by Prof. Fitch; 2:30 P. M. Ophthalmological, by Dr. Montgomery.
Mercy Hospital—2 P. M. Eye and Ear, by Prof. Jones.
Rush Medical College—4 P. M. Diseases of the Chest, by Prof. Ross.

THURSDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
Rush Medical College—1:30 P. M. Neurological, by Prof. Lyman.
Eye and Ear Infirmary—2 to 4 P. M. Operations, by Prof. Holmes and Dr. Hotz.

FRIDAY.

Mercy Hospital—2 P. M. Medical, by Prof. Davis.
County Hospital—1:30 P. M. Medical, by Prof. Ross; 2:30 P. M., Surgical, by Prof. Gunn.
Woman's Medical College—10 P. M. Ophthalmological, by Dr. Montgomery.

SATURDAY.

Rush Medical College—2 P. M. Surgical, by Prof. Gunn.
Chicago Medical College—2 P. M. Surgical, by Prof. Andrews and Isham; 3 P. M., Diseases of Chest, by Prof. Johnson.
Woman's Medical College—12 M. Gynecological, by Prof. Fitch; 3 P. M. Dermatological, Dr. Maynard.

Special Clinics daily, from 2 to 4 P. M., at the South Side Dispensary, and at the Central Free Dispensary.

For schedule of lectures at the colleges, apply to the college janitors.

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